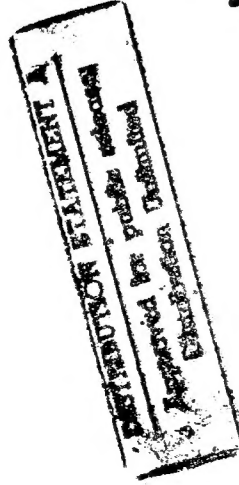


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DEPARTMENT OF THE NAVY  
FY 1996/FY 1997 BIENNIAL BUDGET ESTIMATES



JUSTIFICATION OF ESTIMATES  
BUDGET ACTIVITY 6

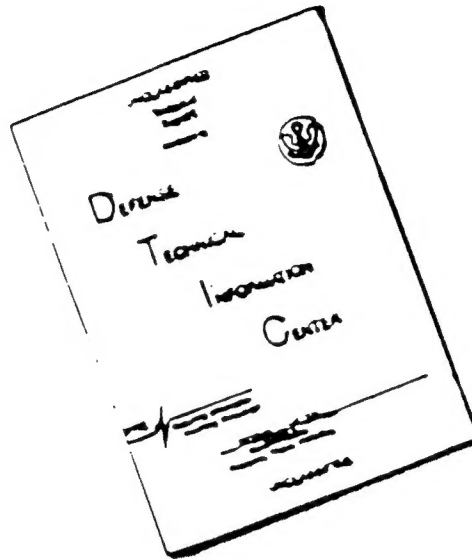
FEBRUARY 1995

RESEARCH, DEVELOPMENT  
TEST & EVALUATION, NAVY  
DESCRIPTIVE SUMMARIES (U)

19950509 036



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PI	PI TITLE
0604256N	THREAT SIMULATOR DEVELOPMENT
0604258N	TARGET SYSTEMS DEVELOPMENT
0604759N	MAJOR I&E INVESTMENT
0605152N	STUDIES AND ANALYSIS SUPPORT NAVY
0605154N	CENTER FOR NAVAL ANALYSIS
0605155N	FLEET TACTICAL DEVELOPMENT
0605801N	TECHNICAL INFORMATION SERVICES
0605831N	MANAGEMENT, TECHNICAL & INTERNATIONAL SUPPORT
0605856N	STRATEGIC TECHNICAL SUPPORT
0605861N	RD&E IN SCIENCE AND TECHNOLOGY MANAGEMENT
0605862N	RD&E IN INSTRUMENTATION MODERNIZATION
0605863N	RD&E IN SHIP AND AIRCRAFT SUPPORT
0605864N	TEST AND EVALUATION SUPPORT
0605865N	OPERATIONAL TEST & EVALUATION CAPABILITY
0605866N	NAVY SPACE & ELECTRONIC WAREFARE SUPPORT
0605867N	SPACE & ELECTRONIC WAREFARE SURVEILLANCE RECONNAISSANCE SUPPORT
0605871M	MARINE CORPS TACTICAL EXPLOITATION OF NATIONAL CAPABILITIES
0605873M	MARINE CORPS PROGRAM WIDE SUPPORT

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## Department of the Navy

## FY 1996/1997 R D T E Program

Exhibit R-1

APPROPRIATION: 1319n Research, Development, Test, and Evaluation, Navy

DATE: 03/06/95

LINE NO	PROGRAM ELEMENT NUMBER	ITEM NOMENCLATURE	BA	Thousands of Dollars					S
				FY 1994	FY 1995	FY 1996	FY 1997	C	
124	0604256N	Threat Simulator Development	06	29,435	27,612	25,911	27,037	U	
125	0604258N	Target Systems Development	06	29,560	26,516	24,364	26,429	U	
126	0604759N	Major T & E Investment	06	51,862	51,810	46,586	43,968	U	
127	0605152N	Studies & Analysis Support/Navy	06	3,514	5,613	9,281	9,443	U	
128	0605154N	Center for Naval Analyses	06	43,260	43,348	44,429	44,505	U	
129	0605155N	Fleet Tactical Development	06	4,296	4,332	2,620	3,128	U	
130	0605502N	Small Business Innovative Research	06	78,040	112,754	-	-	U	
131	0605804N	Technical Information Services	06	14,330	4,698	2,027	1,946	U	
132	0605853N	Management, Technical, & International Spt	06	7,787	9,291	20,371	19,063	U	
133	0605856N	Strategic Tech Support	06	3,610	2,221	3,584	3,621	U	
134	0605861N	RDTE&N Science & Technology Management	06	63,776	62,743	61,001	59,571	U	
135	0605862N	RDTE&N Instrumentation Modernization	06	41,978	8,591	8,278	8,089	U	
136	0605863N	RDTE&N Ship & Aircraft Support	06	74,724	80,524	63,232	66,210	U	
137	0605864N	Test and Evaluation Support	06	275,815	282,457	246,041	236,905	U	
138	0605865N	Operational T&E Capability	06	8,190	8,477	5,675	6,403	U	
139	0605866N	Navy SEW Support	06	4,006	3,321	3,638	3,647	U	
140	0605867N	SEW Surveillance/Recon. Support	06	13,473	11,541	12,134	12,341	U	
141	0605871M	MC Tac Exploit of Natl Capab	06	4,809	758	2,984	3,063	U	
142	0605873M	Marine Corps Program Wide Support	06	6,496	5,223	5,914	8,015	U	
TOTAL	RDTE Management Support			758,961	751,830	588,070	583,384		

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PAGE N- 11

001



# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROGRAM ELEMENT TITLE: Threat Simulator Development

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL PROGRAM
E0602 Electronic Warfare Environment Simulation (ECHO)	18,418	15,333	15,369	15,902	17,159	19,257	19,821	20,248	CONT.	CONT.
E0672 Effectiveness of Navy Electronic Warfare Systems (ENEWS)	11,017	12,279	10,542	11,135	11,819	13,761	14,160	13,590	CONT.	CONT.
TOTAL	29,435	27,612	25,911	27,037	28,978	33,018	33,981	33,838	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This is a continuing program that consolidates the design, fabrication and integration of naval Electronic Warfare (EW) threat simulators for increased managerial emphasis and coordination. These simulator development efforts provide realistic Developmental and Operational Test and Evaluation (DT&E/OT&E) environments to test Tri-Services EW systems and defensive tactics. These projects develop former Soviet and Free-World Anti-Air and Anti-Ship weapon systems simulators in accordance with the Services requirements.

(U) The E0602 Project, EW Environment Simulation (ECHO) provides airborne system component level Test and Evaluation (T&E) at the Electronic Combat Simulation and Evaluation Laboratory (ECSEL), Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), Point Mugu, CA. ECHO also provides a secure anechoic closed loop T&E facility for fully integrated, aircraft-installed systems testing at the EW Integrated Systems Test Laboratory (EWISTL) at the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD. Included in this Project is the T&E of airborne systems and tactics in flight, against the open air range at the Electronic Combat Range (ECR) complex located at the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV), China Lake, CA.

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002

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROGRAM ELEMENT TITLE: Threat Simulator Development

(U) The E0672 Project, Effectiveness of Navy EW Systems (ENEWS), is a Department of the Navy (DON) unique project that supports testing of Ship Self Defense efforts. ENEWS provides T&E of surface and subsurface shipboard systems and tactics in digitally modeled battle scenarios at the component, fully integrated single ship, multi-ship and full-up multi-platform battle group levels. ENEWS also provides a secure anechoic closed loop T&E facility specifically designed to test shipboard systems at the stand alone component or fully integrated systems level. The last and largest portion of this project addresses the flyable Infrared and Radio Frequency simulators flown on specially configured EP-3B aircraft to provide at-sea open air T&E of systems and tactics. All ENEWS assets are developed and maintained by the Naval Research Laboratory (NRL), Washington, DC.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research, T&E, and development use.

Page 124-2 of 124-11 Pages

Exhibit R-2

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

(U) COST (Dollars in thousands) PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL
E0602 Electronic Warfare Environment Simulation (ECHO)	18,418	15,333	15,369	15,902	17,159	19,257	19,821	20,248	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The objective of this project is development of necessary simulation facilities and approaches to allow determination of the effectiveness of EW in real world engagement situations and to support the introduction of modern, effective systems into Naval Aviation. The heavy use of test resources by all Services demonstrates the importance of these assets. The Navy has been very successful in executing all of its major programs, and to date has had no major technical problems.

(U) The EW Environment Simulation (ECHO) project is unique in that it is the only program within the Department of Defense (DOD) which develops and provides Naval anti-air warfare threat assets for Testing and Evaluation (T&E) and is a critical part of the Office of the Secretary of Defense (OSD) Test Resource Master Plan. The OSD Master Plan employs many ECHO project resources for planning, analysis, testing and verification of airborne EW equipment.

(U) This project directly supports the T&E requirements for the following programs such as the High Speed Anti-Radiation Missile, ALR-67(V)2,3,4, ALQ-126B, AN/ALQ-156, Advanced Airborne Expendable Decoy (AAED), EW Advanced Technology (EWAT), AVR-2, AAR-47, as well as other Tri-Service EW systems with initial operational capability dates in the 1990's.

(U) This project provides for the development of an Integrated Air Defense T&E capability to be fielded at each of the three sites comprising the Navy's Tri-Center complex: NAVAIRWARCENWPNDIV, China Lake and Point Mugu in CA, and NAVAIRWARCENACDIV, Patuxent River, MD.

(U) Navy Air Defense Threat Simulator resource requirements are coordinated through the OSD CROSSBOW committee to avoid unwarranted duplication of effort among the services. The Navy Tri-Center approach to T&E resource development ensures project efficiency by cost reductions achievable through common development efforts which provide consistent, repeatable test results between test centers.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

(U) PROGRAM ACCOMPLISHMENTS AND PLANS: PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

## 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$2,490) Completed Weapons Systems - I-15 Upgrade efforts ends.
- (U) (\$1,428) Continued Weapons Systems - JBATS.
- (U) (\$1,164) Completed Weapons Systems - I-30.
- (U) (\$ 830) Completed Early Warning/Acquisition (EW/ACQ) - Generic Acquisition Radar (GAR).
- (U) (\$ 860) Completed EW/ACQ - Laboratory EW/ACQ.
- (U) (\$2,675) Continued Command and Control Systems - Communications Environment Simulation (CES).
- (U) (\$ 200) Continued Command and Control Systems - Command Control and Communication (C3) Integration.
- (U) (\$ 235) Completed Emitter Simulator - Emitter Simulator System (ESS) Basic.
- (U) (\$ 405) Completed Emitter Simulator - MicroAMES.
- (U) (\$3,255) Continued Multispectral Systems - Multispectral Anti-air Test System (MATS).
- (U) (\$1,060) Completed Multispectral Systems - Electronic Support/Counter Measures (ESM/ECM).
- (U) (\$ 106) Continued Validation and Updates - Simulator Evaluation (SIMEVAL).
- (U) (\$ 374) Continued Validation and Updates - Radar Updates.
- (U) (\$ 947) Continued Validation and Updates - Missile/Gun Updates.
- (U) (\$ 370) Continued Validation and Updates - Validation.
- (U) (\$ 847) Continued ECHO technical and engineering support.
- (U) (\$ 376) Continued ECHO System Engineering activity.
- (U) (\$ 796) Continued ECHO Test Requirements activity.

## 2. (U) FY 1995 PLAN:

- (U) (\$4,910) Continue Weapons Systems - JBATS.
- (U) (\$ 750) Initiate/Complete Weapons Systems - Advanced H2 (Foreign Materiel Acquisition Opportunity (FMAO)).
- (U) (\$ 500) Initiate Command and Control Systems - Command and Control Group 2 (C2 Group 2).
- (U) (\$ 800) Complete Command and Control Systems - CES.
- (U) (\$4,292) Continue Multispectral Systems - MATS.
- (U) (\$ 100) Continue Validation and Updates - SIMEVAL.

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065

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

PROJECT NUMBER: E0602  
PROJECT TITLE: ECHO

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N  
PROGRAM ELEMENT TITLE: Threat Simulator Development  
• (U) (\$ 450) Continue Validation and Updates - Radar Updates.  
• (U) (\$ 425) Continue Validation and Updates - Missile/Gun Updates.  
• (U) (\$ 350) Continue Validation and Updates - Validation.  
• (U) (\$1,449) Continue ECHO technical and engineering support.  
• (U) (\$ 642) Continue ECHO System Engineering activity.  
• (U) (\$ 665) Continue ECHO Test Requirements activity.

## 3. (U) FY 1996 PLAN:

- (U) (\$6,202) Continue Weapons Systems - JBATS.
- (U) (\$ 208) Complete Command and Control Systems - C2 Group 2.
- (U) (\$4,558) Complete Multispectral Systems - MATS.
- (U) (\$ 100) Continue Validation and Updates - SIMEVAL.
- (U) (\$ 638) Continue Validation and Updates - Radar Updates.
- (U) (\$ 450) Continue Validation and Updates - Missile/Gun Updates.
- (U) (\$ 350) Continue Validation and Updates - Validation.
- (U) (\$1,923) Continue ECHO technical and engineering support.
- (U) (\$ 275) Continue ECHO System Engineering activity.
- (U) (\$ 665) Continue ECHO Test Requirements activity.

## 4. (U) FY 1997 PLAN:

- (U) (\$1,970) Initiate Weapons Systems - Low Probability Intercept (LPI) Radar.
- (U) (\$ 500) Initiate Command and Control Systems - C3 Battle Management.
- (U) (\$4,272) Initiate Emitter Simulator - ESS Advanced.
- (U) (\$2,718) Initiate Multispectral Systems - Millimeter Wave (MMW).
- (U) (\$ 100) Continue Validation and Updates - SIMEVAL.
- (U) (\$ 831) Continue Validation and Updates - Radar Updates.
- (U) (\$ 450) Continue Validation and Updates - Missile/Gun Updates.

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006

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BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0604256N      DATE: February 1995  
 PROGRAM ELEMENT TITLE: Threat Simulator Development      PROJECT NUMBER: E0602  
 PROJECT TITLE: ECHO

- (U) (\$ 350) Continue Validation and Updates - Validation.
- (U) (\$1,669) Continue ECHO technical and engineering support.
- (U) (\$ 275) Continue ECHO System Engineering activity.
- (U) (\$ 665) Continue ECHO Test Requirements activity.
- (U) (\$2,102) Continue weapon systems - JBATS.

## B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	18,418	15,621	xxx	xxx
(U) FY 1995 Appropriated:	xxx	15,621	xxx	xxx
(U) Adjustments from				
Appropriated/FY 1995 PRESBDG:	(288)		xxx	xxx
(U) FY 1996/97 PRESBDG Submit:	18,418	15,333	15,369	15,902

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The adjustment of -\$288K in FY 1995 reflects the allocation of undistributed adjustments.

(U) Schedules: Project schedules for completion of the Advanced Emitter Simulators have been slipped from 4Q/99 to 4Q/01, J Band Advanced Technology Simulator (JBATS) completion will be delayed two years from FY 1996 to FY 1998, Low Band Radar completion will be delayed one year from FY 1999 to FY 2000, G Band Advanced Technology Simulator (GBATS) has been delayed an additional year from FY 2001 to FY 2002, and Multi Observers Tactical Electronic Warfare Environment Simulator (MOTEWES) and MAWS have been cancelled to accommodate the revised funding profile. The ECHO project schedule maintains the flexibility necessary to participate with other DOD agencies in the pursuit of Foreign Material Acquisition Opportunities (FMAO). ECHO only participates with FMAOs which provide systems acquisitions that are identified in the requirements document. If an FMAO develops, then the project schedule is adjusted to permit acquisition of the foreign material. When the schedule is adjusted the cause will be noted in this section of future R-2 Exhibits.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0602

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ECHO

(U) Technical: The technologies identified in this exhibit are based on a requirements document developed and reviewed annually by the Naval Aviation Systems Team (the primary ECHO customer) from references developed by the Office of Naval Intelligence and the Defense Intelligence Agency. The I-30 simulator was an OSD project. This Program Element (PE) assumed responsibilities to complete the system development as a proof of concept for the "Core Module" technology.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET  
 DATE: February 1995  
 BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N PROJECT NUMBER: E0672  
 PROGRAM ELEMENT TITLE: Threat Simulator Development PROJECT TITLE: ENEWS

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL CONT.
E0672 Effectiveness of Navy Electronic Warfare Systems (ENEWS)	11,017	12,279	10,542	11,135	11,819	13,761	14,160	13,590	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The objective of the Effectiveness of Navy EW Systems (ENEWS) project is the development and application of necessary simulation assets to determine the effectiveness of EW in real-world engagement situations and primarily supports the introduction of modern, effective shipboard EW systems, and tactics for the surface Navy. The heavy use of ENEWS resources by NAVSEA and other developers speaks to the overall importance of these assets. The project provides support for EW system design, Development Test (DT), Operational Test (OT), and the development of tactics. Its quick reaction capabilities have had great impact on crisis situations such as the Falklands conflict, the Iran Harpoon threat, the Persian Gulf crisis, and Operation Desert Shield/Storm.

(U) The primary threat to surface ships is Anti-Ship Missile (ASM) systems. The ENEWS project is unique in that it is the only project within the Department of Defense (DOD) dedicated to developing and providing assets to test and evaluate the effectiveness of shipboard EW systems and tactics against ASMs.

(U) The ENEWS project is a critical part of the OSD Test Resource Master Plan. This plan employs many of the ENEWS assets for planning, analysis, testing and verification of shipboard EW systems and tactics. As part of its continuing activities, ENEWS has provided T&E/DT&E/OT&E support to Combat Systems At Sea Qualification Testing (CSSQT) for CG-47, DDG-51 and CV/CVN class ships as well as SLQ-32 PHASE improvements. DT and OT support will be provided for the SLQ-32 PHASE improvements, SLQ-32 (V)1-5, Rapid Anti-ship Integrated Defense System (RAIDS), OUTLAW BANDIT systems, Multiband Anti-ship Cruise Missile Defense Tactical EW System (MATES), and other Ship Self-Defense Initiatives including RDT&E 6.3A Advanced Technology Demonstrations.

(U) Computer simulation and modeling, hardware in the loop (HITL) test facilities, and ASM simulators flown on a specially configured EP-3B aircraft are the major program assets. Resources are used in combination to measure EW system effectiveness in a cost efficient manner.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT NUMBER: E0672

PROJECT TITLE: ENEWS

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$ 650) Continued Computer Simulation (COMSIM) Computer System Readiness.
- (U) (\$ 450) Continued COMSIM Intelligence Upgrades.
- (U) (\$1,348) Continued COMSIM New Developments.
- (U) (\$3,096) Continued Radio Frequency Simulation (RFSIM) Simulator Readiness.
- (U) (\$2,101) Continued RFSIM Intelligence Upgrades.
- (U) (\$ 797) Continued RFSIM New Developments.
- (U) (\$ 633) Continued Infrared Simulation (IRSIM) Simulator Readiness.
- (U) (\$ 750) Continued IRSIM Intelligence Upgrades.
- (U) (\$1,192) Continued IRSIM New Developments.

### 2. (U) FY 1995 PLAN:

- (U) (\$ 950) Continue COMSIM Computer System Readiness.
- (U) (\$ 550) Continue COMSIM Intelligence Upgrades.
- (U) (\$1,316) Continue COMSIM New Developments.
- (U) (\$3,589) Continue RFSIM Simulator Readiness.
- (U) (\$1,769) Continue RFSIM Intelligence Upgrades.
- (U) (\$1,085) Continue RFSIM New Developments.
- (U) (\$1,536) Continue IRSIM Flyable Simulators Readiness.
- (U) (\$ 800) Continue IRSIM Intelligence Upgrades.
- (U) (\$ 684) Continue IRSIM New Developments.

### 3. (U) FY 1996 PLAN:

- (U) (\$ 750) Continue COMSIM Computer System Readiness.
- (U) (\$ 600) Continue COMSIM Intelligence Upgrades.
- (U) (\$1,066) Continue COMSIM New Developments.

Page 124-9 of 124-11 Pages

Exhibit R-2

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604256N

PROJECT NUMBER: E0672

PROGRAM ELEMENT TITLE: Threat Simulator Development

PROJECT TITLE: ENEWS

- (U) (\$3,212) Continue RFSIM Simulator Readiness.
- (U) (\$1,403) Continue RFSIM Intelligence Upgrades.
- (U) (\$1,048) Continue RFSIM New Developments.
- (U) (\$1,193) Continue IRSIM Readiness.
- (U) (\$ 480) Continue IRSIM Intelligence Upgrades.
- (U) (\$ 790) Continue IRSIM New Development.

## 4. (U) FY 1997 PLAN:

- (U) (\$ 900) Continue COMSIN Computer System Readiness.
- (U) (\$ 600) Continue COMSIN Intelligence Upgrades.
- (U) (\$1,035) Continue COMSIN New Developments.
- (U) (\$3,044) Continue RFSIM Simulator Readiness.
- (U) (\$1,258) Continue RFSIM Intelligence Upgrades.
- (U) (\$1,659) Continue RFSIM New Developments.
- (U) (\$1,225) Continue IRSIM Readiness.
- (U) (\$ 741) Continue IRSIM Intelligence Upgrades.
- (U) (\$ 673) Continue IRSIM New Developments.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604256N PROJECT NUMBER: E0672  
PROGRAM ELEMENT TITLE: Threat Simulator Development PROJECT TITLE: ENEWS

## B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	11,017	12,382	xxx	xxx
(U) FY 1995 Appropriated:	xxx	12,382	xxx	xxx
(U) Adjustments from				
Appropriated/FY 1995 PRESBUDG:		(103)	xxx	xxx
(U) FY 1996/97 PRESBUDG Submit:	11,017	12,279	10,542	11,135

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The adjustment of -\$103K in FY 1995 reflects the allocation of undistributed adjustments.

(U) Schedule: Project schedules for completion of the "C" shell upgrade effort impact the AN/ALQ-170 sime 8, 17, 18, and 19 variants. These sime are stimulators only and will not be upgraded to full simulators. The RF/IR, Radio Frequency Anti Radiation Missile (RF/ARM), and Multimeter Wave/Anti Radiation Missile (MMW/ARM) simulators have been terminated to accommodate the revised funding profile. The ENEWS project schedule maintains the flexibility necessary to participate with other DOD agencies in the pursuit of Foreign Material Acquisition Opportunities (FMAOs). ENEWS only participates in FMAOs which provide systems identified in requirements documentation. If an FMAO materializes, project schedules are adjusted to permit the acquisition. When schedules are adjusted, the cause will be noted in this section of future R-2a.

(U) Technical: The technologies pursued by this project are based on a requirements document developed and reviewed annually by the Naval Sea Systems Command (the primary ENEWS customer) from references developed by the Office of Naval Intelligence.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROGRAM ELEMENT TITLE: Target Systems Development

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM
A0609 Aerial Target Systems Development	12,480	12,698	9,704	10,517	18,070	20,576	20,875	21,355	CONT. CONT.
A0610 Weapon Systems T&E Development/Procurement	13,512	12,990	14,030	15,232	11,434	13,372	13,766	14,172	CONT. CONT.
A0611 Supersonic Sea Skimming Target	1,982	0	0	0	0	0	0	0	0 8,458
S0612 Surface Targets Development	1,586	828	630	680	701	810	834	858	CONT. CONT.
TOTAL	29,560	26,516	24,364	26,429	30,205	34,758	35,475	36,385	CONT. CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element funds the development and procurement of aerial and surface targets and associated Target Augmentation and Auxiliary Systems (TA/AS) necessary to duplicate or simulate threat characteristics in support of weapons systems test and evaluation and fleet training. Included within this program element are Joint QF-4 development, continued development of Navy QF-4S for procurement instead of QF-4N as part of DOD Tri-Service QF-4 full scale aerial target development program; BQM-74 improvements; MQM-8G Extended, Extended Range (EER) development; various TA/AS developments; and development of the At-sea Target Launch Ship (ATLS) for Vandal (new start in FY-97) (A0609); procurement of QF-4N, MQM-8G(EER), TA/AS and the X(M)-31 for Navy Weapons Systems Test and Evaluation (A0610); Cost and Operational Effectiveness Analyses (COEA) and technical investigation of the SSST (A0611); and continued development of surface towed targets, improved target control system and an anti-radiation missile target (S0612).

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N  
PROGRAM ELEMENT TITLE: Target Systems Development

(U) COST (Dollars in thousands)

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL
A0609 Aerial Target Systems Development	12,480	12,698	9,704	10,517	18,070	20,576	20,875	21,335	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Aerial Target Systems and associated target augmentation and auxiliary systems are developed in response to the need to test and provide training for Joint strike and littoral warfare systems required to defend fleet surface and air units in a hostile environment. The threat envelope covered extends from the surface to 100K feet for speeds in the low subsonic range to MACH 4.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$1,404) Completed Target Augmentation/Auxiliary System (TA/AS) kit integration into Navy Standard Tow Target System (NSTTS).
- (U) (\$ 267) Completed Subsonic Aerial Target (SAT) Cost and Operational Effectiveness Analysis (COEA) effort and plan BQM-74 improvements based on COEA.
- (U) (\$5,111) Continued Non-cooperative Airborne Vector Scorer (NAVS) engineering manufacturing development (EMD) development.
- (U) (\$ 78) Continued support of Joint QF-4 EMD under Air Force lead.
- (U) (\$1,216) Continued development of QF-4s for procurement instead of QF-4N.
- (U) (\$ 404) Continued development of ULQ-21/Electronic Counter-Measures modules (ECM).
- (U) (\$2,236) Completed MQM-8G(EER) capability development program.

Page 125-2 of 125-11

Exhibit R-2

# UNCLASSIFIED

015

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0604258N      PROJECT NUMBER: A0609  
PROGRAM ELEMENT TITLE: Target Systems Development      PROJECT TITLE: Aerial Targets Systems Development

- (U) (\$ 259) Continued miscellaneous TA/AS support.
- (U) (\$1,505) Continued miscellaneous target support.
- 2. (U) FY 1995 PLAN:
  - (U) (\$1,750) Initiate the BQM-74 improvements based on SAT COEA.
  - (U) (\$ 650) Continue development of QF-4S for procurement instead of QF-4N.
  - (U) (\$ 126) Continue support of Joint QF-4 EMD under Air Force lead.
  - (U) (\$ 427) Initiate Modeling and Simulation (M&S) efforts.
  - (U) (\$6,432) Continue NAVS EMD development.
  - (U) (\$1,494) Continue development of ULQ-21/ECM modules.
  - (U) (\$ 148) Continue miscellaneous TA/AS support.
  - (U) (\$1,671) Continue miscellaneous target support.
- 3. (U) FY 1996 PLAN:
  - (U) (\$2,250) Continue BQM-74 improvements.
  - (U) (\$3,730) Complete NAVS EMD development.
  - (U) (\$1,100) Continue development and support of ULQ-21/ECM modules.
  - (U) (\$ 120) Continue TA/AS support.

UNCLASSIFIED

010

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0609

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Aerial Targets System Development

- (U) (\$ 150) Continue Joint QF-4 development.
- (U) (\$1,650) Continue target support.
- (U) (\$ 704) Continue Modeling and Simulation (M&S).

## 4. (U) FY 1997 PLAN:

- (U) (\$ 909) Continue development and support of ULQ-21/ECH modules.
- (U) (\$ 407) Continue TA/AS support
- (U) (\$ 500) Continue Joint QF-4 development.
- (U) (\$1,984) Continue target support.
- (U) (\$1,705) Continue Modeling and Simulation (M&S).
- (U) (\$2,237) Continue BQM-74E improvements.
- (U) (\$2,775) Initiate development of the At-Sea Target Launch Ship (ATLS) for Vandal.

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994	FY 1995	FY 1996	FY 1997
	11,980	13,984	XXX	XXX
(U) FY 1995 Appropriated:	XXX	13,334	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	+500	-636	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	12,480	12,698	9,704	10,517

UNCLASSIFIED

017



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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N  
 PROGRAM ELEMENT TITLE: Target Systems Development PROJECT NUMBER: A0609  
 PROJECT TITLE: Aerial Targets System Development

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 94 increase of +\$500K represents an end-of-year execution update. The FY 95 reduction of -\$636K reflects the allocation of undistributed adjustments.

(U) Schedule: Not applicable

(U) Technical: Not applicable

## C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM
(U) WPN # 12	112,991	121,361	68,620	87,648	83,316	92,971	86,091	85,085	CONT. CONT.
(U) RELATED RDT&E:									
(U) PE 0204136N (F/A-18 Squadrons)									
(U) PE 0205667N (F-14 Upgrade)									
(U) PE 0207161N (Tactical Air Intercept)									
(U) PE 0207163N (Advanced Medium Range Air-to-Air Missile)									
(U) PE 0604366N (Standard Missile Improvements)									
(U) PE 0604372N (New Threat Upgrade)									
(U) PE 0604755N (Ship Self Defense)									

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0610

PROGRAM ELEMENT TITLE: Target Systems Development PROJECT TITLE: Weapon Systems T&E Development/Procurement

(U) COST (Dollars in thousands)

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
A0610 WEAPON SYSTEMS T&E DEVELOPMENT/PROCUREMENT	13,512	12,990	14,030	15,232	11,434	13,372	13,766	14,172	CONT.	CONT.
<p>A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides for the development and procurement of aerial targets used solely for test and evaluation of Naval Weapons Systems which closely replicate current and projected threats to fleet units in the Joint Strike and the Littoral Warfare environments. This replication must include characteristics related to size, performance envelope, and electromagnetic and infrared signatures. As threats change, changes must be made to keep the targets as threat representative as possible. This is done in response to changes in the requirements of the developers of naval weapons systems.</p>										

## B. (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$12,078) Converted and supported 7 F-4N aircraft into QF-4N targets.
- (U) (\$ 600) Provided support for Advanced Radar Missile Scorer (ARMS) and Target Augmentation/Auxiliary Support (TA/AS).
- (U) (\$ 250) Continued aviation depot level repair work for QF-4N aircraft.
- (U) (\$ 584) Continued miscellaneous target support.

### 2. (U) FY 1995 PLAN:

- (U) (\$ 8,080) Convert and support 3 full scale aircraft into targets.
- (U) (\$ 1,755) Support and procure Aircraft Interface Units/Target Control Panels.
- (U) (\$ 256) Final increment on full scale aerial target inducted in FY-94.
- (U) (\$ 650) Continue QF-4S development.
- (U) (\$ 1,518) Complete ARMS procurement and continue TA/AS support.

(U) UNCLASSIFIED

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BUDGET ACTIVITY: 6    PROGRAM ELEMENT: 0604258N    DATE: February 1995  
 PROGRAM ELEMENT TITLE: Target Systems Development    PROJECT NUMBER: A0610  
 PROJECT TITLE: Weapon Systems T&E Development/  
 Procurement

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

- (U) (\$ 400) Continue aviation depot level repair work for QF-4N aircraft.
  - (U) (\$ 331) Continue miscellaneous target support.
- (U) FY 1996 PLAN:
- (U) (\$ 200) Support 2 QF-4N targets.
  - (U) (\$2,831) Complete QF-4S development, convert and support 2 F-4S aircraft into QF-4S targets.
  - (U) (\$6,056) Support and procure 24 MQM-8G(EER) Vandals.
  - (U) (\$2,500) Procure 15 Non-Cooperative Airborne Vector Scorer (NAVS) and support the NAVS program.
  - (U) (\$1,600) Support Foreign Cooperative Testing Program X(M-31) for a supersonic sea skimming surrogate.
  - (U) (\$ 485) Continue aviation depot level repair work for QF-4N/QF-4S targets.
  - (U) (\$ 358) Continue miscellaneous target support.

### (U) FY 1997 PLAN:

- (U) (\$ 800) Support phase out efforts for the QF-4N targets.
- (U) (\$2,202) Support and maintain QF-4S targets.
- (U) (\$2,000) Joint QF-4 tri-service program funds for ECP for Navy unique requirements .
- (U) (\$8,290) Second increment on procurement and support of MQM-8G(EER) Vandals.
- (U) (\$ 900) Support the NAVS program.
- (U) (\$ 671) Continue aviation depot level repair work for QF-4N/QF-4S targets.
- (U) (\$ 369) Continue miscellaneous target support.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: A0610

PROGRAM ELEMENT TITLE: Target Systems Development  
PROJECT TITLE: Weapon Systems T&E Development/  
Procurement

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:

(U) FY 1995 Appropriated:

(U) Adjustments from Appropriated/FY 1995 PRESBDG:

(U) FY 1996/97 PRESBDG Submit:

(U) CHANGE SUMMARY EXPLANATION:

FY 1994 13,994	FY 1995 13,202	FY 1996 XXX	FY 1997 XXX
XXX	13,202	XXX	XXX
-482	-212	XXX	
13,512	12,990	14,030	15,232

(U) Funding: The FY 94 reduction of -\$482K represents an end-of-year update. The FY 95 reduction of -\$212K reflects the allocation of undistributed adjustments.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

## C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

### (U) RELATED RDT&E:

- (U) PE 0204136N (F/A-18 Squadrons)
- (U) PE 0205667N (F-14 Upgrade)
- (U) PE 0207161N (Tactical Air Intercept)
- (U) PE 0207163N (Advanced Medium Range Air-to-Air Missile)
- (U) PE 0604366N (Standard Missile Improvements)
- (U) PE 0604372N (New Threat Upgrade)
- (U) PE 0604755N (Ship Self Defense)

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROGRAM ELEMENT TITLE: Target Systems Development

(U) COST: (Dollars in Thousands)

## PROJECT

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM
S0612 Surface Targets Development	1,586	828	630	680	701	810	834	858	CONT.CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Development of surface towed targets, improved target control system and an anti-radiation missile target.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$ 150) Continued Command and Control Augmentation development.
- (U) (\$ 50) Continued requirements analysis.
- (U) (\$ 341) Continued Weapons Systems/Emitter. Target Augmentation System (TAS) Upgrades.
- (U) (\$1,045) Continued Surface Target Radar Simulator (STRS).

### 2. (U) FY 1995 PLAN:

- (U) (\$ 165) Continue Command and Control Augmentation development.
- (U) (\$ 80) Continue requirements analysis.
- (U) (\$ 182) Continue Weapons System/Emitter, TAS upgrade.
- (U) (\$ 145) Complete STRS.
- (U) (\$ 256) Transition Ship Simulator Platform (SSP) to 40 Meter Mobile Ship Target (MST). (NEW START)

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0604258N

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT NUMBER: S0612

PROJECT TITLE: Surface Targets Development

## 3. (U) FY 1996 PLAN:

- (U) (\$ 40) Commence Next Generation Target Control System (NGTCS) Integration with Command and Control Augmentation.
- (U) (\$ 110) Complete requirements analysis.
- (U) (\$ 225) Continue 40 Meter MST documentation/design development.
- (U) (\$ 100) Continue Weapons System/Emitter. TAS Upgrade (Multi-mode TAS).
- (U) (\$ 155) Commence Tow Target Avionics/Electronics development.

## 4. (U) FY 1997 PLAN:

- (U) (\$ 100) Continue NGTCS Integration with Command and Control Augmentation.
- (U) (\$ 250) Continue 40 Meter MST M/S II documentation development.
- (U) (\$ 150) Continue Weapons System/Emitter. TAS Upgrade (Signature Evaluation and Control).
- (U) (\$ 67) Commence development of Modeling and Simulation (MS) applications.
- (U) (\$ 113) Complete Tow Target Avionics/Electronics development.

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0604258N

PROJECT NUMBER: S0612

PROGRAM ELEMENT TITLE: Target Systems Development

PROJECT TITLE: Surface Targets Development

### B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994	FY 1995	FY 1996	FY 1997
	1,586	856	XXX	XXX
(U) FY 1995 Appropriated:	XXX	856	XXX	
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:		-28	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	1,586	828	630	680

### (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: Reduction of -\$28K in FY 95 reflects allocation of undistributed adjustments.

(U) Schedule: 40m MST documentation completion date will be extended one year ; NGTCS integration effort will be reduced and extended one year.

(U) Technical: Not Applicable

### C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	TO	TOTAL
ACTUAL	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	COMPLETE	PROGRAM
OPN LINE 5518000	0	4,797	4,348	0	4,826	0	0	CONT.	CONT.

(U) RELATED RDT&E: Not applicable.

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025



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PROGRAM ELEMENT BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

PROGRAM ELEMENT: 06047590

PROGRAM ELEMENT TITLE: Major T&E Support

(U) COST: (Dollars in Thousands)

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W1105 T&E Investment	51,862	51,810	46,586	43,968	45,868	54,265	55,857	57,496	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project improves visibility of Test and Evaluation (T&E) resources across the Services for Major T&E investment funding. These funds correct major deficiencies, improve T&E capabilities and increase T&E support effectiveness. The T&E Investment project provides support for the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEH DET AUTEC), Andros Island, Bahamas; the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPDIV), Point Mugu, CA and China Lake, CA; the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: Budget Activity 6: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$4,955) NAVUNSEAWARCEH DET AUTEC. Completed the computer and displays system part of the Distributed Data Processing and Communication system. Continued work on interface with ranges and facilities. Detailed items for Down Range Site Reductions and initiated procurement of hardware. Continued work on countermeasures resistant tracking system. Initiated system interface design work on an advanced noise measurement system.
- (U) (\$18,690) NAVAIRWARCENWPDIV. Continued System rehabilitation and Modernization (SRAM) efforts for existing test equipment to maintain core capabilities. Initiated procurement of a second parallel underwater fiber optic cable from Point Mugu to San Nicolas Island. Continued FPS-16 metric tracking radar upgrades to increase accuracy, improve system reliability and to track small uncooperative targets at low altitude and in sea clutter environment. Continue to upgrade radars tracking system.

Page 126-1 of 126-7 Pages

Exhibit R-2

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## FF 100 FF-E, H BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

FF 100 ELEMENT: 000406-01

PROJECT NUMBER: W2195

PROJECT TITLE: T&E Investment

FF 600 ELEMENT: 11111: Major T&E Support

Initiated replacement of flight termination transmitters. Completed telemetry (TM) circuit design capability. Initiated replacement of unmaintainable computer dedicated to threat radar and initiated upgrade to the threat radar operational control to mcr. Continued the replacement of the four maintenance CYBER computers with a low cost distributed network of microcomputers. Initiated Keep alive upgrades to the Integrated Target Control Systems (ITCS).

- (U) (\$9,175) NAVAIRWPCENACTIV. Continued SRAM efforts for existing test equipment to maintain core capabilities. Continued improvements to Flight Test Range radar systems, range computation and control systems and installed Tri-Service Production Global Positioning systems equipment. Continued improvement and integration of electronic warfare emission simulation and dynamic avionics measurement capabilities. Procured and installed data analysis software, hardware, and communication improvements. Continue upgrade of Electromagnetic Environmental Effects (EE) capabilities. Completed initial procurements and improvements to Multi-mission Interoperability Center and Integrated Aircraft Weapon System. Initiated improvements to Electromagnetic Transient T&E Facility and portable Range Support Aircraft Installation.
  - (U) (\$13,100) Global Positioning Systems (GPS). Continued to procure and integrate the Tri-Service Range Application Joint Program Office (RAJO) GPS system equipment for HAVUNSEAWARCEN DET AUTEC, NAVAIRWPCENACTIV and NAVAIRWPCENACTIV.
  - (U) (\$6,000) Portable Tracking System (PTS). Awarded contract for the major hardware buys. Continued software development. Developed the technical specifications and procurement packages for the subsystems. Conducted shallow and deep water tests on prototypes.
2. (U) FY 1995 PLAN:
- (U) (\$7,050) HAVUNSEAWARCEN DET AUTEC. Initiate the implementation of the capability to utilize the AUTEC Computer and Display System in support of GPS and remote ranges and facilities. Continue work on the systems interface between AUTEC, Navy Major Range Test and Facility Base and facilities with emphasis on being compatible with new technology for in-water tracking. Accelerate work on implementing the cost saving Down Range Site Production Program to a brace end of FY-96 completion date. Continue work on the Countermeasure Resistant Tracking and Advanced Range Measurement System.

Page 126-2 of 126-7 Pages

Exhibit R-2

# UNCLASSIFIED

027

# UNCLASSIFIED

PROJECT ELEMENT TITLE: Major T&E Support

PROJECT ACTIVITY: 6 PROGRAM ELEMENT: 0004/0000  
PROGRAM ELEMENT TITLE: Major T&E Support

DATE: February 1995  
PROJECT NUMBER: W2195  
PROJECT TITLE: T&E Investment

- (U) (\$12,146) NAVAIRWARCEWHPHIV. Continue SPAM efforts for existing test equipment to maintain core capabilities. Complete the upgrade of five Kineto tracking mounts (KTM-A) with theodolite, engineering sequential and laser tracking capabilities. Initiate KTM-B upgrades to integrate infrared sensor and video track capability. Complete advanced range tracker in FPS-16 tracking radar. Complete Radar Cross Section (RCS) radar spares upgrades. Continue replacement of flight termination transmitters. Complete Electronic Combat Range (ECR) post test analysis and data products hardware and software upgrades. Continue to secure communication and data processing capabilities. Continue Keep Alive upgrades to ITCS. Complete replacement of the CYBER computers with low cost distributed microcomputer network. Initiate GPS integration into range data links and data processing. Continue command and control and radio communication improvements. Continue upgrades to the Range Control Center Integration and processing system. Complete ECR operation center upgrades. Complete air traffic control display systems (P-2508 Pehost) at the Sea Test Range. Complete replacement of 1972 master operations control center providing multi-lateration tracking. Continue program to upgrade five radars with new tracking pedestals.
- (U) (\$8,600) NAVAIRWARCEWHPHIV. Continue SPAM efforts on existing flight test and ground test systems to maintain core capabilities. Continue improvements to dynamic avionics measurement capability. Continue upgrades to range flight test secure communications, tracking and data computation systems. Continue improvements to T&E data processing and networking. Continue E3, Electromagnetic Transient T&E and portable Range Support Aircraft Instrumentation improvements.
- (U) (\$17,896) GPS. Continue to procure and integrate the Tri-Service RAJPO GPS system equipment for NAVAIRWARCEWHPHIV AND NAVAIRWARCEWHPHIV. Initiate the procurement process for the Large Area Tracking Range GPS equipment for NAVIRSEAWARCEWHPHIV DET AUTEC.
- (U) (\$6,118) Portable Tracking System (PTS). Continue to monitor the procurement for the major hardware buys in support of PTS. Continue signal processor and software development.

Page 126-3 of 126-7 Pages

Exhibit R-2

# UNCLASSIFIED

023

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## FF 100 ELEMENT BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995  
PROJECT NUMBER: W2195  
PROJECT TITLE: T&E Investment

BUDGET ELEMENT: 0001500  
FF 100 ELEMENT TITLE: Major T&E Support

1. (U) FF 100, PLAN:

- (U) (\$6,750) HAVOHSEAWARREN DET AUTEC. Complete Integrated Processing and Communication System project. Complete Town Range Site Reduction Project. Complete Interface with Ranges and Facilities project. Continue Countermeasure Resistant Tracking and Advanced Noise Measurement projects.
- (U) (\$13,500) HAVAIWAPARUWENHIV. Continue SRAM efforts for existing test equipment to maintain core capabilities. Continue the phased replacement of 57 aging single-function M-45 and fixed Askania sites by completing four of fifteen Mobile Multi-function Fineto tracking mounts (KTM-B) capabilities. Continue the upgrading of radar tracking pedestals and other components. Initiate the replacement of the obsolete Air Route Surveillance Radar (ARSR-1). Initiate installation of a mobile radar on San Nicolas Island. Complete the replacement of flight termination transmitters. Complete upgrades to the Range Control Center Integration and Processing System. Continue fiber communication networks throughout the ranges. Complete ITC3 Keep Alive upgrades. Continue environmental chamber and pulsed test data control and processing upgrades. Initiate upgrades for excess emitters to significantly increase the Radio Frequency (RF) density at the ECR. Begin replacement of telemetry receivers, antenna drives, and airborne telemetry spares. Complete range communications systems to digital switches, data transmission, and routing hub architectures.
- (U) (\$8,000) HAVAIWAPARUWENHIV. Continue SRAM efforts on existing flight test and ground systems to maintain core capabilities. Continue upgrade of dynamic avionics measurement capabilities. Complete initial E3 test capability improvements. Continue upgrades to range flight test secure communication and high definition video, tracking, and data acquisition computation systems. Continue improvements to T&E data processing and communication of data with external activities. Continue Electromagnetic Transient T&E and portable Range Support aircraft instrumentation improvements.
- (U) (\$12,074) GPS. Continue delivery and integration of the Tri-service RAJPO GPS system equipment. Complete procurement and integration of LATR GPS equipment for HAVOHSEAWARREN DET AUTEC.

Page 126-4 of 126-7 Pages

Exhibit R-2

# UNCLASSIFIED

009

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PROJECT ELEMENT: 0004/500

PROJECT TITLE: Major T&E Support

DATE: February 1995

PROJECT NUMBER: W2195

PROJECT TITLE: T&E Investment

- (U) (S, 494) F&E. Complete the Production Shallow Water System Contract. Complete the 104 Channel Digital Signal Processor. Complete the Tracking and Display Software. Integrate the Communication Sub-System. Integrate the In-Air (GPS) Tracking Sub-System.

1. (U) FY 1997 PLAN:

- (U) (S, 510) NAVJSEAWARFET AFTEC. Complete Down Range Site Reduction project. Complete Countermeasure Postcard project. Continue Advanced Noise measurement Project. Initiate the Replace In-Water Hydrophones project. By the start of this program, the Tracking Hydrophones in the Tongue of the Ocean will be 34 years old. The new in-water tracking technology, which will be available at the time of implementation, will make this a cost-effective replacement approach. This program will avoid catastrophic failures resulting in loss of in-water tracking. Cables will run to Site 1, reducing down range site activity, and reducing data communication from down range sites to command and control at Main Base.
- (U) (S17, 118) NAVJSEAWARFET FWHENIV. Continue the phased replacement of 57 aging single-function M-45 and fixed Askania sites by completing seven of fifteen Mobile Multi-function Kineto tracking mounts (DTM-B) providing infrared and electro-optical tracking improvements for non-cooperative, low observable targets. Complete the second of five radar pedestals and component upgrades and begin upgrades on the third radar. Continue the replacement of the ARSP 1 surveillance radar. Continue mobile radar installation on San Nicolas Island. Begin replacement of FFS-16 computers and re-host software. Continue upgrades to post telemetry decommutation system upgrade, processor software, and data display. Initiate voice high-frequency radio upgrades, frequency monitoring, and timing upgrades. Complete fiber communication networks. Provide target simulation frequency upgrades. Provide upgrades to surface target's electronics and engine shops. Continue RF density upgrades at ECR. Initiate upgrades to all TM acquisition receivers, recorders, processors, and spares. Complete conversion of Radar video of FFS-114 from analog to digital format to offload and retire an obsolete analog microwave from San Nicolas Island to Point Mugu.

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## FF 100 FIVE, H PROJECT ITEM JUSTIFICATION SHEET

DATE: February 1995  
PROJECT NUMBER: W2195  
PROJECT TITLE: T&E Investment

FF 020 ELEMENT: 0001/0001  
FF 020 ELEMENT TITLE: Major T&E Support

- (U) (56,100) HAZAIRWAP-EMA-DIV. Continue SPAM efforts on existing flight test and ground test systems to maintain core capabilities. Continue upgrade of dynamic avionics measurement capabilities. Continue improvement to range command, control, tracking, and data acquisition and computation systems. Continue upgrades to T&E data processing and communication. Continue upgrades to Electromagnetic Transient T&E capabilities and portable Range Support Aircraft Instrumentation.
- (U) (56,442) GPS. Continue equipment deliveries and integration of the Tri-Service RAJPO GPS system equipments.
- (U) (52,700) F15. Deliver System to AUTEK. Operationally turn over PTS system to AUTEK.

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031

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PROJECT AND FUNDING JUSTIFICATION SHEET

DATE: February 1995

PROJECT NUMBER: W2195  
PROJECT TITLE: T&E Investment

PROGRAM ELEMENT: 06017501  
PROGRAM ELEMENT TITLE: Major T&E Support

## B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	51,862	51,966	XXX	XXX
(U) FY 1995 Appropriated:	XXX	51,966	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	XXX	-156	XXX	XXX
(U) FY 1996/97 PRESBUDG, Submit:	51,862	51,810	46,586	43,968

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 decrease reflects a proportional share of an undistributed funding adjustment.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

## C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable

(U) RELATED PDT&E: PE 06058640:Test and Evaluation Support (Navy) and PE 0605807F:Test and Evaluation Support (Air Force).

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033



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FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N  
PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
L2097 Manpower, Personnel and Training										
	313	318	273	257	262	305	314	324	CONT.	CONT.
M0106 Naval Medical Support Capability										
	210	106	106	103	106	124	128	132	CONT.	CONT.
R0132 CNO Program Analysis and Evaluation										
	305	271	269	265	273	323	333	343	CONT.	CONT.
R0133 National Academy of Sciences/Naval Studies Board										
	962	423	2,494	2,507	2,522	2,536	2,551	2,569	CONT.	CONT.
R0147 Operational Strategic and Tactical Effectiveness Analysis										
	460	415	414	404	419	493	508	523	CONT.	CONT.
R2040 Foreign Ship and Submarine Vulnerability Program										
	126	1,022	0	0	0	0	0	0	0	2,403
S2233 Naval Surface Warfare Studies										
	0	1,972	1,840	1,763	1,781	2,045	2,107	2,170	CONT.	CONT.
W2092 Naval Aviation Studies										
	1,138	1,086	3,885	4,144	1,086	1,133	1,166	1,194	CONT.	CONT.
TOTAL	3,514	5,613	9,281	9,443	6,449	6,959	7,107	7,255	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides analytical support to the Secretary of the Navy and the Chief of Naval Operations as a basis for major policy, planning and acquisition program execution decisions. It supports research and development strategy development and planning. It supports studies in the areas of manpower, personnel, training, and aviation. It also develops analytical tools for evaluating effectiveness of U.S. weapons against potential foreign threat ships and submarines.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

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BUDGET ACTIVITY: 6  
 FY 1996 RDT&E.N BUDGET ITEM JUSTIFICATION SHEET  
 DATE: February 1995  
 PROGRAM ELEMENT: 0605152N  
 PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
L2097 Manpower, Personnel and Training	313	318	273	257	262	305	314	324	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Chief of Naval Personnel has an ongoing need for direct analyses of Navy manpower, personnel, and training (MPT) policies and program planning. This project provides an essential management tool to: (a) assess the effectiveness of existing MPT policies and programs, (b) identify needs for new policies and programs, (c) determine the required manpower and training mix relative to changing demographic, societal and legislative/regulatory trends, and to evolving strategic and geopolitical factors, (d) study the impact of MPT programs on Navy accession, retention, and performance, and (e) develop, validate and/or refine a broad range of MPT forecasting models. The program permits Navy to more effectively utilize Research and Development expertise to respond to emerging MPT problems.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$70) Assessed gender discrimination in the Navy.
  - (U) (\$50) Evaluated effects of drawdown programs on retention.
  - (U) (\$50) Examined minority personnel issues.
  - (U) (\$40) Started study of costs and benefits of alternative graduate education programs.
  - (U) (\$103) Assessed policies and procedures pertinent to manpower distribution and training.
2. (U) FY 1995 PLAN:
  - (U) (\$65) Study and analyze emerging issues associated with force downsizing and restructuring.
  - (U) (\$100) Evaluate policies associated with women on ships.
  - (U) (\$50) Assess impact of moving/reducing civilian personnel on the MPT System.
  - (U) (\$63) Analyze the officer and enlisted distribution systems.
  - (U) (\$40) Complete study of costs and benefits of alternative graduate education programs.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROJECT NUMBER: L2097

PROGRAM ELEMENT TITLE: Studies and Analysis  
Support, Navy

PROJECT TITLE: Manpower, Personnel and Training

3. (U) FY 1996 PLAN:
  - (U) (\$75) Conduct studies and analyses in support of women on ships initiatives.
  - (U) (\$75) Conduct studies and analyses on impact of moving the Bureau of Naval Personnel (BUPERS).
  - (U) (\$75) Support the BUPERS initiatives to examine how manpower and personnel management should be done in the future.
  - (U) (\$48) Support efforts to relate quality of life to retention and readiness.
4. (U) FY 1997 PLAN:
  - (U) (\$74) Support efforts to redefine the way manpower and personnel management is done in the future.
  - (U) (\$74) Support efforts to redefine and establish career paths for Navy enlisted personnel similar to the Navy officer career paths.
  - (U) (\$74) Continue to perform studies and analysis of the women on ships initiatives.
  - (U) (\$35) Examine cultural diversity and the impact it will have on readiness and effectiveness.

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994	FY 1995	FY 1996	FY 1997
	313	319	XXX	XXX
(U) FY 1995 Appropriated:	XXX	319	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESUDG:	0	-1	XXX	XXX
(U) FY 1996/97 PRESUDG Submit:	313	318	273	257

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 funding reduction is due to congressional undistributed cut for university research (-1).

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036

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BUDGET ACTIVITY: 6      FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET      DATE: February 1995  
PROGRAM ELEMENT: 0605152N      PROJECT NUMBER: L2097  
PROGRAM ELEMENT TITLE: Studies and Analysis      PROJECT TITLE: Manpower, Personnel and Training  
Support, Navy

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E:

(U) PE 0603707N (Manpower, Personnel, and Training Advanced Technology Development)  
(U) PE 0604703N (Manpower, Personnel, Training, Simulation and Human Factors)  
(U) PE 0602234N (Materials, Electronics and Computer Technology)

D. (U) SCHEDULE PROFILE: Not applicable.

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## FY 1996 RDT&E.N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0106 Navy Medical Support Capability	210	106	106	103	106	124	128	132	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides validated data to identify the root causes of problems and to optimize services associated with the health care delivery to Navy and Marine Corps personnel afloat and in contingency operations. This usually requires database and model development and statistical analyses of inter-related requirements or operational variables, and their impact on performance. The analysis of these variables requires a combination of medical/technical knowledge and operational perspectives.

### (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

#### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$210) Established database from records at three major Naval Hospitals, developed survey instruments for appropriate follow-ups, and determined the incidence and correlates of spontaneous abortions among U.S. Navy women as tasked by the Chief of Naval Personnel and the Surgeon General of the Navy.

#### 2. (U) FY 1995 PLAN:

- (U) (\$106) Analyze the database of pregnancy outcomes to identify potential health risks for women aboard ships; identify medical evacuation patterns, potential reproductive hazards, and issues of health care delivery for female patients to provide data on increasing numbers of women in deployed or operational environments to optimize health care.

#### 3. (U) FY 1996 PLAN:

- (U) (\$106) Establish a database from multiple sources and examine the relationships between completed suicides, gestures, and attempts, and organizational and environmental factors in the Navy and Marine Corps to identify risk factors and opportunities for intervention.

Page 127-5 of 127-22 Pages

Exhibit R-2

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053

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BUDGET ACTIVITY: 6      FY 1996 PDL&E,N BUDGET ITEM JUSTIFICATION SHEET      DATE: February 1995  
 PROGRAM ELEMENT: 0605152N      PROJECT NUMBER: M0106  
 PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy Medical Support Capability

- 4 (U) FY 1997 PLAN:
- (U) (\$103) Evaluate changing operational requirements and identify methods to improve the aggregation, display, and utilization of shipboard automated medical system information to assist fleet surgeons and force medical officers in mission support.

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
	109	114	XXX	XXX
(U) FY 1995 Appropriated:	XXX	114	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESUDG:	+101	-8	XXX	XXX
(U) FY 1996/97 PRESUDG Submit:	210	106	106	103

## (U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: FY 1994 increase is due to end of year execution update (+101). FY 1995 reduction is due to congressional undistributed cut for university research (-8).
- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.

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FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROJECT NUMBER: M0106

PROGRAM ELEMENT TITLE: Studies and Analysis Support,  
Navy Medical Support Capability

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

Page 127-7 of 127-22 Pages

Exhibit R-2

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: February 1995

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

BUDGET ACTIVITY: 6

(U) COST: (Dollars in Thousands)

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0132 CNO Program Analysis and Evaluation	305	271	269	265	273	323	333	343	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides analytical support to the Chief of Naval Operations and the Secretary of the Navy in evaluation of overall balance within total Navy programs. This includes such tasks as: (a) evaluation of force capabilities and requirements; (b) analysis of effectiveness of systems under development; (c) Secretary of Defense directed independent cost and effectiveness analyses of major Navy programs; and (d) items of Congressional interest as they relate to Navy programs. Deliverables consist of formal, structured documents containing or leading to conclusions and/or recommendations as well as the development and maintenance of databases and models. The use of databases and models is driven by the need to objectively and continually assess the impact of reduced funding and/or force drawdown upon Navy programs. They provide Navy planners and decision makers with objective, empirical data with which to make determinations regarding program planning and evaluation of issues. The models funded by this account are the primary tools used to formulate program balance in the assessment process (particularly the Readiness, Support and Infrastructure Assessment and the Investment Balance Review). The analyses based on these models form the heart of the Investment Balance Review, allowing the Navy to formulate and cost-out alternative force structure, manpower, infrastructure and readiness programs.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$80) Continued developing models and databases for studies to improve decision making and enhance understanding of readiness, sustainability and other programmatic issues.
  - (U) (\$150) Continued the update and maintenance of the Aviation Readiness model and the Ships Resource-to-Readiness model.
  - (U) (\$75) Provided statistical support and conducted studies and analyses to support the Navy's Assessment models.

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## FY 1996 ROUTE,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605152N PROJECT NUMBER: R0132  
 PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy PROJECT TITLE: CNO Program Analysis and Evaluation

2. (U) FY 1995 PLAN:
  - (U) (\$248) Maintain the Aviation Readiness model and the Ships Resource-to-Readiness model.
  - (U) (\$21) Continue to conduct studies and analyses to support the Navy's Assessment process.
3. (U) FY 1996 PLAN:
  - (U) (\$269) Develop, maintain and perform analysis with the Aviation Readiness model and the Ships Resource-to-Readiness model (including Navy parts inventory work) and other econometric models.
4. (U) FY 1997 PLAN:
  - (U) (\$265) Develop, maintain and perform analysis with the Aviation Readiness model and the Ships Resource-to-Readiness model (including Navy parts inventory work) and other econometric models.

### B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	305	365	XXX	XXX
(U) FY 1995 Appropriated:	XXX	365	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	0	-94	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	305	271	269	265

### (U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: FY 1995 funding reduction is due to congressional undistributed cuts for university research (-1), consulting services (-88), and assessment for Small Business Innovative Research (-5).
- (U) Schedule: Not applicable.

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FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis  
Support, Navy

PROJECT NUMBER: R0132

PROJECT TITLE: CNO Program Analysis and Evaluation

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E:

(U) PE 0605154N (Center for Naval Analysis)

(U) PE 0605873M (Marine Corps Program Wide Support)

D. (U) SCHEDULE PROFILE: Not applicable.

Page 127-10 of 127-22 Pages

Exhibit R-2

# UNCLASSIFIED

043

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM CONT.
R0133 National Academy of Sciences/Naval Studies Board	962	423	2,494	2,507	2,522	2,536	2,551	2,569	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the core program for the Naval Studies Board. As agreed upon between the Chief of Naval Operations (CNO) and the President of the National Academy of Sciences and with appropriate attention to the influence of the domestic economy, national objectives, social imperatives and anticipated military requirement, the Naval Studies Board will conduct and report upon surveys, investigations, and analyses in the field of scientific research and development applicable to the operation and function of the Navy. Reports consist of a briefing to the Assistant Secretary of the Navy (Research Development and Acquisition) and the CNO and staff, and written technical reports. This project supported Technology Initiative Games at the Naval War College in FY 1994.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$962) Continued Office of Naval Research (ONR) research opportunities investigations, and supported the Annual Classified Military Space Symposium, Weinblum Memorial Lecture Series, International Conference on Numerical Methods in Ship Hydrodynamics, and the International Towing Tank Conference. Supported Technology Initiatives Games.
2. (U) FY 1995 PLAN:
  - (U) (\$423) Continue ONR research efforts and investigations in the areas of interest to the Navy. Continue to support annual Navy authorized activities of importance, such as the Annual Classified Military Space Symposium and the Weinblum Memorial Lecture Series.
3. (U) FY 1996 PLAN:
  - (U) (\$494) Continue ONR research efforts and investigations in the areas of interest to the Navy. Continue to

Page 127-11 of 127-22 Pages

Exhibit R-2

# UNCLASSIFIED

044

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605152N

PROJECT NUMBER: R0133

PROJECT TITLE: Studies and Analysis of Sciences/Naval Support, Navy Studies Board

- support annual Navy authorized activities of importance, such as the Annual Classified Military Space Symposium and the Weinblum Memorial Lecture Series.
- (U) (\$2,000) Produce three investigations of significant importance to the Navy concerning science and technical matters as they relate to most critical national issues. These investigations shall be selected from proposals solicited from CNO and ASN (RD&A).

4. (U) FY 1997 PLAN:
  - (U) (\$507) Continue ONR research efforts and investigations in the areas of interest to the Navy. Continue to support annual Navy authorized activities of importance, such as the Annual Classified Military Space Symposium and the Weinblum Memorial Lecture Series.
  - (U) (\$2,000) Produce three investigations of significant importance to the Navy concerning science and technical matters as they relate to most critical national issues. These investigations shall be selected from proposals solicited from CNO and ASN (RD&A).

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994	FY 1995	FY 1996	FY 1997
	471	568	XXX	XXX
(U) FY 1995 Appropriated:	XXX	568	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	+491	-145	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	962	423	2,494	2,507

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1994 funding increase is due to end of year execution update (+491). FY 1995 funding reduction is due to congressional undistributed cuts for university research (-1), consulting services (-137), and assessment for

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605152N      PROJECT NUMBER: R0133      DATE: February 1995  
PROGRAM ELEMENT TITLE: Studies and Analysis      PROJECT TITLE: National Academy of Sciences/Naval  
Support, Navy      Studies Board

Small Business Innovative Research (-7).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0147 Operational Strategic and Tactical Effectiveness Analysis	460	415	414	404	419	493	508	523	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides the Chief of Naval Operations and the Secretary of the Navy direct analyses of Navy policy, strategy acquisition, and program planning in meeting the following objectives: (a) producing study results impacting upon important programs/issues; (b) identifying and evaluating policy and strategy alternatives and doctrine; and (c) evaluating the capabilities of programmed forces to accomplish missions assigned to the Navy. Deliverables consist of formal, structured documents containing or leading to conclusions and/or recommendations as well as the development and maintenance of databases and models. This project directly supports and is critical for conducting the Navy's joint mission assessments.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$316) Conducted continual reviews of the Capabilities Resource Allocation Display (CAPRAD) Database and performed econometric/statistical analyses on the impact of changes, resulting in part from the restructuring of the Operation and Maintenance appropriations. Made changes and revalidated the Integrated Program Assessment System (IPAS) and other models in order to run these programs under the revised allocation display.
- (U) (\$144) Conducted studies with and provided on-site training, analysis and enhancements to Integrated Theater Engagement Model (ITEM).

### 2. (U) FY 1995 PLAN:

- (U) (\$215) Conduct studies and perform analysis evaluating concepts and strategies, defining requirements, assessing capabilities, reviewing program alternatives and analyzing program and planning issues.
- (U) (\$200) Update the CAPRAD Database, IPAS, and ITEM.

Page 127-14 of 127-22 Pages

Exhibit R-2

# UNCLASSIFIED

047

# UNCLASSIFIED

FY 1996 PDL&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROJECT NUMBER: R0147

PROGRAM ELEMENT TITLE: Studies and Analysis  
Support, Navy

PROJECT TITLE: Operational Strategic and Tactical  
Effectiveness

## 3. (U) FY 1996 PLAN:

- (U) (\$239) Continual reviews of the CAPRAD Database will be conducted and econometric/statistical analyses will be performed on the impact of changes resulting from downsizing and programmatic changes. Plans also include updating and revalidating the IPAS and other models in order to run these programs using revised allocation displays.
- (U) (\$175) Conduct studies and provide enhancements to ITEM, the primary tool for campaign analysis for Assessments.

## 4. (U) FY 1997 PLAN:

- (U) (\$229) Continual reviews of the CAPRAD Database will be conducted and econometric/statistical analyses will be performed on the impact of changes resulting from downsizing and programmatic changes. Plans also include updating and revalidating the IPAS and other models in order to run these programs using revised allocation displays.
- (U) (\$175) Conduct studies and provide enhancements to ITEM, the primary tool for campaign analysis for Assessments.

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994	FY 1995	FY 1996	FY 1997
	460	561	XXX	XXX
(U) FY 1995 Appropriated:	XXX	561	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	0	-146	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	460	415	414	404

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043

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RUDGET ACTIVITY: 6      FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET      DATE: February 1995  
PROGRAM ELEMENT: 0605152N      PROJECT NUMBER: R0147  
PROGRAM ELEMENT TITLE: Studies and Analysis      PROJECT TITLE: Operational Strategic and Tactical Support, Navy      Effectiveness

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 funding reduction is due to congressional undistributed cuts for university research (-1), consulting services (-136), and assessment for Small Business Innovative Research (-9).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

## (U) RELATED RDT&E:

(U) PE 0605154N (Center for Naval Analyses)

(U) PE 0605873M (Marine Corps Program Wide Support)

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST: (Dollars in Thousands)

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
S2233 Naval Surface Warfare Studies	0	1,972	1,840	1,763	1,781	2,045	2,107	2,170	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides for analysis of the warfighting capability of Naval forces by examining specific selected numbers and mixes of surface combatants and other forces that are subjected to representative operational situations in a joint littoral environment. The U.S. strategic emphasis has shifted from global containment and warfighting to a global stability strategy with regional focus. As part of an overall effort at addressing future Naval force levels and capabilities, the Navy must assess the warfighting effectiveness of different mixes of surface combatants in battle groups operating in a littoral warfare environment and develop an investment strategy that supports the capabilities required. Required Operational Capabilities/Projected Operational Environment (ROC/POE) must be updated every 2 years or created for new ship classes. These ROC/POE's are vitally important in that mission requirements for ships drive equipment configurations, manning levels and associated shipboard accommodations, tailor ship and staff missions, capabilities, manning to new strategies, tactics, operational environments, and policies.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS: Not applicable.

2. (U) FY 1995 PLAN:

- (U) (\$1,972) Conduct campaign analyses to identify battle force capabilities considering various force mixes. These analyses will develop functional requirements of various task groups in a Joint littoral context. Warfare capabilities and Measures of Effectiveness will be obtained from scoping models and these results will be used in characterizing capabilities for battle space dominance (air, undersea, surface and land) and for power projection. Verify accuracy of results, review and modify campaign scenarios and operational situations to scope, focus and interpret the analyses. Apply results of these analyses to the Future Surface Combatant Cost and Operational Effectiveness Analysis (COEA). Incorporate results into strategic planning and investment

Page 127-17 of 127-22 Pages

Exhibit R-2

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BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605152H      DATE: February 1995  
 FY 1996 BUDGET ITEM JUSTIFICATION SHEET  
 PROGRAM ELEMENT TITLE: Studies and Analysis      PROJECT NUMBER: S2233  
 Support, Navy      PROJECT TITLE: Naval Surface Warfare Studies

strategies for future Joint Littoral Warfare Naval Forces. Revise ROC/POE instructions.

3. (U) FY 1996 PLAN:
  - (U) (\$1,840) Continue analyses to identify battle force capabilities considering various force mixes. These studies will address the warfighting and national security policy and strategy requirements for effective, flexible and cost-efficient Naval Surface Warfare Forces, including the numbers and mixes of surface combatants and other forces that are subjected to representative operational situations in a joint littoral environment. Measures of Effectiveness will be used in characterizing Naval Surface Warfare capabilities for battle space dominance and for power projection. The results will be verified, reviewed and applied to campaign scenarios and operational situations to scope, focus and interpret the analyses. The results of these analyses will be applied to the 21st century combatant (SC 21) COEA and into strategic planning and investment strategies for future Joint Littoral Warfare Naval Forces. Revise ROC/POE instructions.
4. (U) FY 1997 PLAN:
  - (U) (\$1,763) Continue analyses of Naval Surface Warfare capabilities required for battle space dominance and power projection. Littoral warfare requirements will continue to shape the definition of surface ship capabilities. These studies will be aimed at obtaining the required capabilities in an affordable and effective surface fleet. Revise ROC/POE instructions.

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994	FY 1995	FY 1996	FY 1997
	0	2,017	XXX	XXX
(U) FY 1995 Appropriated:	XXX	2,017	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	0	-45	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	0	1,972	1,840	1,763

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051

# UNCLASSIFIED

BUDGET ACTIVITY: 6      FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET      DATE: February 1995  
PROGRAM ELEMENT: 0605152N      PROJECT NUMBER: S2233  
PROGRAM ELEMENT TITLE: Studies and Analysis      PROJECT TITLE: Naval Surface Warfare Studies  
Support, Navy

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 funding reduction is due to congressional undistributed cuts for university research (-3), travel (-2), and assessment for Small Business Innovative Research (-40).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy

(U) COST (Dollars in Thousands)

PROJECT NUMBR & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W2092 Naval Aviation Studies	1,138	1,086	3,885	4,144	1,086	1,133	1,166	1,194	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports studies over a wide range of naval aviation issues that support the ongoing Joint Strike Assessment (JSA) guidelines. Results provide a basis for recommendations to the Chief of Naval Operations concerning major policy, planning, and acquisition program decisions. This effort is a management initiative which will allow allocation of study resources in a timely manner according to priorities. This ongoing program will continue to leverage more detailed program specific analysis in order to gain insight in acquisition of various weapon systems and their impact on force structure, manning levels, operational readiness and Carrier Air Wing (CVW) effectiveness. This program will also support various Cost and Operational Effectiveness Analysis (COEA) Studies.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$500) Continued CVW critical mission system analysis.
- (U) (\$122) Initiated study of Battle Group (BG)/Maritime Action Group (MAG) effectiveness for validity and timeliness of targeting data for Tactical Aircraft usage.
- (U) (\$356) Defined system requirements for naval aircraft in support of BG/MAG and Carrier Battle Group (CVBG) operations.
- (U) (\$160) Continued mix analysis of strike aircraft in parametric threat environment leading to tradeoffs of tactics, electronic countermeasures and signature control.

2. (U) FY 1995 PLAN:

- (U) (\$400) Continue CVBG mix requirement analysis based on new tactical and support aircraft procurement strategies and new world threat structure.
- (U) (\$330) Continue and expand analysis of strike effectiveness in parametric threat environment with tradeoffs

Page 127-20 of 127-22 Pages

Exhibit R-2

# UNCLASSIFIED

053

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605152N

PROGRAM ELEMENT TITLE: Studies and Analysis  
Support, Navy

PROJECT NUMBER: W2092

PROJECT TITLE: Naval Aviation Studies

- and sensitivities associated with tactics, electronic countermeasures and signature control.
- (U) (\$56) Conduct general aviation studies and COEA studies.
- (U) (\$300) Conduct studies identified from JSA briefings, including support to other assessment areas.

## 3. (U) FY 1996 PLAN:

- (U) (\$440) Continue CVW mix requirement analysis based on new tactical and support aircraft and new world threat structure.
- (U) (\$340) Continue and expand analysis of strike effectiveness in parametric threat environment with tradeoffs and sensitivities associated with tactics, electronic countermeasures and signature control.
- (U) (\$23) Conduct general aviation studies and COEA studies.
- (U) (\$295) Continue support to the JSA and other assessment efforts.
- (U) (\$1,445) Initiate study on potential Common Support Aircraft (CSA). Investigate requirement for potential of using one airframe to replace existing support aircraft (E-2, C-2, S-3/ES-3).
- (U) (\$1,342) Initiate study of Common Light Vertical Aircraft (CLVA) to analyze potential of one airframe replacing AH-1W Cobra, UH-1 and H-60 series helicopters and missions.

## 4. (U) FY 1997 PLAN:

- (U) (\$478) Continue CVW mix requirement analysis based on new tactical and support aircraft procurement strategies and new world threat structure.
- (U) (\$240) Continue and expand analysis of strike effectiveness in a parametric threat environment with tradeoffs and sensitivities associated with tactics, electronic countermeasures and signature control.
- (U) (\$22) Conduct general aviation studies and COEA studies.
- (U) (\$335) Continue support to the JSA and other assessment efforts.
- (U) (\$1,490) Complete study on potential CSA. Investigate requirement for potential of using one airframe to replace existing support aircraft (E-2, C-2, S-3/ES-3).
- (U) (\$1,579) Complete study of CLVA to analyze potential of one airframe replacing AH-1W Cobra, UH-1 and H-60 series helicopters and missions.

Page 127-21 of 127-22 Pages

Exhibit R-2

# UNCLASSIFIED

054

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605152N PROJECT NUMBER: W2092  
 PROGRAM ELEMENT TITLE: Studies and Analysis Support, Navy PROJECT TITLE: Naval Aviation Studies

## B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	1,138	1,089	XXX	XXX
(U) FY 1995 Appropriated:	XXX	1,089	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	0	-3	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	1,138	1,086	3,885	4,144

## (U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: FY 1995 funding reduction is due to congressional undistributed cuts for university research (-2) and travel (-1).
- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.
- C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.
- (U) RELATED RDT&E: Not applicable.
- D. (U) SCHEDULE PROFILE: Not applicable.

# UNCLASSIFIED

055

# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0031 Marine Corps Operations Analysis Group										
R0148 Center for Naval Analyses, Navy	4,607	4,376	4,445	4,444	4,566	4,692	4,854	4,854	CONT.	CONT.
	38,653	38,972	39,984	40,061	41,427	42,669	44,029	45,432	CONT.	CONT.
TOTAL	43,260	43,348	44,429	44,505	45,993	47,361	48,883	50,286	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Center for Naval Analyses (CNA) is the Department of the Navy's only Federally Funded Research and Development Center (FFRDC). CNA provides independent, objective, and expert analyses based on its unique access to sensitive data and hands-on exposure to fleet operations gained through its world-wide field program. CNA's continuing program of research is primarily concentrated along 14 categories of study called product areas. These product areas are structured to enhance CNA's focus of applied research and analysis upon the major present and future needs and issues of the Navy and the Marine Corps. Because of rapid advances in technology, changes in the fleet, the increasing complexity of weapon systems, and reductions in manpower, force structure, and budgets, the Navy and Marine Corps have a greater need for analyses that are both sophisticated and timely. CNA is highly qualified to meet that need.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

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# UNCLASSIFIED

DATE: February 1995

FY 1996 BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY 6 PROGRAM ELEMENT: 0605154N  
PROGRAM ELEMENT TITLE: Center for Naval Analyses

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0031 Marine Corps Operations Analysis Group	4,607	4,376	4,445	4,444	4,566	4,692	4,854	4,854	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program supports the Marine Corps' portion of the Center for Naval Analyses (CNA) research program under the auspices of the Department of the Navy (DON) Annual Study and Analysis Plan for CNA. It is managed as an element of the Marine Corps Studies System. This program provides independent research and analysis, those appropriate for a Federally Funded Research and Development Center, in the areas of cost and operational effectiveness analysis, manpower utilization, training, force structure, weapons systems analysis, operational tests, and field exercise support. This program also provides CNA field representative and scientific analyst support at major Marine Corps commands.

## (U) PROGRAM ACCOMPLISHMENT AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$1,197) Executed the approved portion of the DON FY 1994 Study and Analysis Plan for CNA including "Emerging" and "Quick Response" study and analysis requirements.
- (U) (\$1,465) Staffed six Field Representatives and eight Scientific Analysts.
- (U) (\$1,945) Continued ten FY 1993 study and analysis projects.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

PROJECT NUMBER: C0031

PROJECT TITLE: Marine Corps Operations  
Analysis Group

## 2. (U) FY 1995 PLAN:

- (U) (\$1,618) Execute the approved portion of the DON FY 1995 Study and Analysis Plan for CNA including "Emerging" and "Quick Response" study and analysis requirements.
- (U) (\$1,558) Staff six Field Representatives and eight Scientific Analysts.
- (U) (\$1,200) Continue eleven FY 1994 study and analysis projects.

## 3. (U) FY 1996 PLAN:

- (U) (\$880) Execute the approved Marine Corps portion of the DON FY 1996 Study and Analysis Plan for CNA including "Emerging" and "Quick Response" study and analysis requirements.
- (U) (\$1,631) Staff six Field Representatives and eight Scientific Analysts.
- (U) (\$1,934) Continue ten FY 1995 study and analysis projects.

## 4. (U) FY 1997 PLAN:

- (U) (\$1,532) Execute the approved Marine Corps portion of the DON FY 1997 Study and Analysis Plan for CNA including "emerging" and "quick-response" study and analysis requirements.
- (U) (\$1,706) Staff six Field Representatives and eight Scientific Analysts.
- (U) (\$1,206) Continue ten FY 1996 study and analysis projects.

Page 128-3 of 128-7 Pages

Exhibit R-2

# UNCLASSIFIED

053

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

PROJECT NUMBER: C0031

PROJECT TITLE: Marine Corps Operations  
Analysis Group

### B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1995 President's Budget:	4,607	4,583	XXX	XXX
(U) FY 1995 Appropriated:	XXX	4,583	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	0	-207	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	4,607	4,376	4,445	4,444

### (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: Decrease in FY 1995 is due to FFRDC reductions (-207).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

### C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

#### (U) RELATED RDT&E:

(U) PE 0605873M (Marine Corps Program Wide Support)

### D. (U) SCHEDULE PROFILE: Not applicable.

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# UNCLASSIFIED

DATE: February 1995

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROGRAM ELEMENT TITLE: Center for Naval Analyses

(U) COST: (Dollars in Thousands)

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0148 Center for Naval Analyses, Navy	38,653	38,972	39,984	40,061	41,427	42,669	44,029	45,432	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the Navy's portion of the Center for Naval Analyses (CNA) research program. CNA conducts a wide range of projects that provide two fundamental services to the Navy: (1) on-site analyses for unified, or fleet commanders to improve tactics and readiness of existing forces, and (2) analyses for Navy headquarters decision-makers with responsibility for systems acquisition, program planning and budgeting, and manpower management. CNA's study and analysis capabilities cover 14 categories, or product areas, of research, including: geopolitical security environment; roles, missions, and concepts of operations; force planning and evaluation; fleet tactics and capabilities; joint Space and Electronic Warfare/Command, Control, Communications, Computers, Intelligence and Information; cost and operational effectiveness analysis (COEA); research and development and acquisition; infrastructure; manpower and personnel; medical; training; readiness, maintenance, and logistics; system requirements; and, modeling and simulation. CNA's analyses have resulted in substantial improvements in force structure, fleet effectiveness, and significant cost avoidance.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$38,653) Addressed issues of major importance to Navy leadership in the above research areas. CNA's research program has been planned in a broad outline form on an annual basis, and has been continually updated to identify specific, "emerging" and "quick-response" study requirements to be conducted during the year. The frequent review ensures that CNA's program is coordinated with other Navy research and that it addresses critical, high-priority issues requiring CNA's innovative and objective approach.

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FY 1996 RUT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605154N

PROJECT NUMBER: R0148

PROGRAM ELEMENT TITLE: Center for Naval Analyses

PROJECT TITLE: Center for Naval Analyses,  
Navy

## 2. (U) FY 1995 PLAN:

- (U) (\$39,972) Address issues of major importance to Navy leadership in the above research areas. CNA's research program will be continually updated to support the Navy efficiently and effectively. CNA's analytical support will be critical to Navy's transition to smaller budgets in a shifting national security environment. CNA's program will place greater emphasis on COEA's; tactical training; naval environmental issues; infrastructure; contributions to joint and multinational operations; roles and missions of the Navy; the role of the Naval Reserve; littoral warfare; efficiencies in readiness, logistics, and manpower and personnel; and, modeling and simulation validation.

## 3. (U) FY 1996 PLAN:

- (U) (\$39,984) Address issues of major importance to Navy leadership in the above research areas. CNA's research program will be continually updated to support the Navy efficiently and effectively. CNA's program will place greater emphasis on COEA's; tactical training; naval environmental issues; infrastructure; contributions to joint and multinational operations; roles and missions of the Navy; the role of the Naval Reserve; littoral warfare; efficiencies in readiness, logistics, and manpower and personnel; and, modeling and simulation validation.

## 4. (U) FY 1997 PLAN:

- (U) (\$40,061) Address issues of major importance to Navy leadership in the above research areas. CNA's research program will be continually updated to support the Navy efficiently and effectively. CNA's program will place greater emphasis on COEA's; tactical training; naval environmental issues; infrastructure; contributions to joint and multinational operations; roles and missions of the Navy; the role of the Naval Reserve; littoral warfare; efficiencies in readiness, logistics, and manpower and personnel; and, modeling and simulation validation.

Page 128-6 of 128-7 Pages

Exhibit R-2

# UNCLASSIFIED

061

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605154N      DATE: February 1995  
PROGRAM ELEMENT TITLE: Center for Naval Analyses      PROJECT NUMBER: R0148  
PROJECT TITLE: Center for Naval Analyses, Navy

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994 38,653	FY 1995 40,811	FY 1996 XXX	FY 1997 XXX
(U) FY 1995 Appropriated:	XXX	40,811	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	0	-1,839	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	38,653	38,972	39,984	40,061

(U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: Decrease in FY 1995 is due to FFRDC reductions (-1,839).
- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E:

- (U) PE 0605152N (Studies and Analysis Support)

D. (U) SCHEDULE PROFILE: Not applicable.

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063

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605155N

PROGRAM ELEMENT TITLE: Fleet Tactical Development and Evaluation

(U) COST: (Dollars in thousands)

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0151 Intertype Tactical Development and Evaluation	4,296	4,332	2,620	3,128	3,228	3,856	3,990	4,129	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element supports all naval warfare task areas and provides technical and analytical support to the fleet operating forces to develop and evaluate tactics for newly evolving force structures, new and existing weapon system employment, and changing threat scenarios to improve and measure force readiness.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$190) Continued development of mine countermeasure tactics.
- (U) (\$200) Developed surface-to-air missile (SAM) counter-tactics including SAM versus Tactical Aircraft.
- (U) (\$395) Developed EA-6B/jamming tactics including joint operations.
- (U) (\$722) Developed strike warfare/joint procedures.
- (U) (\$320) Developed enhanced anti-surface underwater warfare (ASUW) procedures emphasizing the littoral environment.
- (U) (\$135) Developed night close air support (CAS)/joint CAS procedures.
- (U) (\$260) Developed SAM tactical effectiveness utilizing results from USN/FGN Mayfly Exercise.
- (U) (\$339) Developed anti-surface warfare procedures emphasizing the non-nuclear threat/littoral environment.
- (U) (\$810) Developed battle group/battle force joint procedures, emphasizing amphibious ship placement in a multi-threat environment; operational deception tactics in third world littorals; and airborne warning control system joint operations.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605155N

PROJECT NUMBER: R0151

PROGRAM ELEMENT TITLE: Fleet Tactical Development and Evaluation

PROJECT TITLE: Intertype Tactical Development Integration

- (U) (\$130) Developed ship defense tactics versus anti-ship missile salvos.
- (U) (\$260) Developed/evaluated helicopter self protection tactics.
- (U) (\$480) Upgraded and provided support for Navy Lessons Learned System (NLLS).
- (U) (\$55) Developed and published annual report for Steering Committee and Quarterly Status Reports.

## 2. (U) FY 1995 PLAN:

- (U) (\$645) Continue to develop strike warfare/joint procedures.
- (U) (\$265) Develop submarine coordinated procedures.
- (U) (\$480) Continue development of ships defense tactics, including hardkill/softkill considerations.
- (U) (\$270) Evaluate and further develop SAM tactics.
- (U) (\$263) Develop air littoral tactic.
- (U) (\$140) Develop tactics for avoiding/suppressing of integrated air defense system.
- (U) (\$145) Develop air tactics in support of amphibious operations.
- (U) (\$170) Develop F-18 tactics.
- (U) (\$340) Continue to develop mine countermeasure tactics.
- (U) (\$100) Evaluate and further develop ASUM tactics.
- (U) (\$680) Further upgrade/maintain operation of NLLS.
- (U) (\$394) Further refine/develop communication tactics.
- (U) (\$40) Develop and publish annual report for Steering Committee and quarterly reports.

## 3. (U) FY 1996 PLAN:

- (U) (\$400) Develop expeditionary warfare tactics against emerging threats and adapt blue water tactics to near land scenarios.
- (U) (\$400) Develop command, control, communications and computer intelligence (C4I)/command and control warfare (C2W) tactics to counter emerging threats.
- (U) (\$350) Develop Joint/Combined Force tactics to counter emerging threats.
- (U) (\$200) Develop mine countermeasure tactics against specific emerging threat mines.
- (U) (\$350) Develop combat identification tactics.
- (U) (\$300) Develop Battle Damage Assessment (BDA) tactics.
- (U) (\$320) Develop Cooperative Engagement Concept (CEC)/theater air defense tactics.
- (U) (\$300) Develop attack helicopter tactics.

Page 129-2 of 129-4 Pages

Exhibit R-2

UNCLASSIFIED

065



# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605155N

PROGRAM ELEMENT TITLE: Fleet Tactical Development and Evaluation

PROJECT NUMBER: R0151

PROJECT TITLE: Intertype Tactical Development Integration

### 4. (U) FY 1997 PLAN:

- (U) (\$465) Continue to develop expeditionary warfare tactics against emerging threats and adapt blue water tactics to near land scenarios.
- (U) (\$450) Continue development of C4I/C2W tactics to counter emerging threats.
- (U) (\$450) Continue to develop Joint/Combined force tactics to counter emerging threats.
- (U) (\$450) Continue to develop combat identification tactics.
- (U) (\$463) Continue development of BDA tactics.
- (U) (\$475) Continue development of CEC/theater air defense tactics.
- (U) (\$375) Continue to develop attack helicopter tactics.

### B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	4,346	4,570	XXX	XXX
(U) FY 1995 Appropriated:	XXX	4,570	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	-50	-238	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	4,296	4,332	2,620	3,128

### (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1994 reduction is due to end of year execution update (-50). FY 1995 reduction is due to congressional undistributed cuts for university research (-119), consulting services (-63), travel (-6), and assessment for Small Business Innovative Research (-50).

(U) Schedule: Not applicable.

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060

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605155N

PROGRAM ELEMENT TITLE: Fleet Tactical Development and Evaluation

PROJECT NUMBER: R0151

PROJECT TITLE: Intertype Tactical Development Integration

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E:

(U) PE 0603711N (Fleet Tactical Development)

D. (U) SCHEDULE PROFILE: Not applicable.

Page 129-4 of 129-4 Pages

Exhibit R-2

# UNCLASSIFIED

067

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET  
 PROGRAM ELEMENT: 0605804N  
 PROGRAM ELEMENT TITLE: Technical Information Services  
 DATE: February 1995

BUDGET ACTIVITY: 6

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0835 Technical Information Services	14,330	4,698	2,027	1,946	1,957	2,260	2,325	2,393	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides for controlled access to, and exchange of, scientific and technical information by Navy/DoD components and present/potential contractors; supports research and development initiatives by promoting ready access to scientific and technical information to government users through use of advanced information acquisition and distribution techniques; supports the DON interface with the Defense Technical Information Center (DTIC) and Information Analysis Centers (IACs); funds the Navy Acquisition Research and Development Center (NARDIC); and supports transfer of appropriate Navy-developed innovative concepts and inventions to private sector and local governments for civil use (mandated in Public Law 96-480, Federal Technology Transfer Act of 1986) through Navy publications, Offices of Research and Technology Applications (ORTAs), and promotion of Cooperative Research and Development Agreements (CRADAs) and Cooperative Agreements.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$243) Coordinated industry Independent Research and Development (IR&D) technical information exchange between Navy activities and industry; supported production/distribution of IR&D plans/projects on CD-ROMs to Navy activities; promoted use of IR&D information in Navy program formulation.
- (U) (\$2,687) Increased joint efforts with other agencies for regional/national technology transfer; coordinated technology transfer training for various levels in-house, publicized Navy technological results to industry;

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BUDGET ACTIVITY 6      FY 1996 FDT&E, N BUDGET ITEM JUSTIFICATION SHEET      DATE: February 1995

PROGRAM ELEMENT 0605804N      PROJECT NUMBER: R0835

PROGRAM ELEMENT TITLE: Technical Information Services      PROJECT TITLE: Technical Information Services

solicited the input of Navy requirements documents and technical reports to NARDIC and DTIC; funded the NARDIC; coordinated the Navy share of mandated funding of the Federal Laboratory Consortium; expanded technology transfer outreach activities; supported CRADA initiation efforts.

- (U) (\$4,000) Funded the Advanced Technical Information Support System.
- (U) (\$7,400) Funded Navy share of DTIC/IAC services.

## 2. (U) FY 1995 PLAN:

- (U) (\$1,762) Coordinate IR&D technical information exchange between industry and the Navy activities; support OSD in making Government advanced planning documentation available to industry; apply advanced data gathering/dissemination techniques to Industry IR&D plans (CD-ROMs, electronic bulletin boards); promote IR&D technical information exchange meetings. Fund the NARDIC. Facilitate the transfer of appropriate Navy-developed discoveries and concepts to the private sector for commercial and general public exploitation.

- (U) (\$2,936) Fund the Advanced Technical Information Support System.

## 3. (U) FY 1996 PLAN:

- (U) (\$2,027) Coordinate input of Navy requirements documentation to the NARDIC and DTIC; fund the NARDIC; facilitate controlled dissemination to industry; coordinate IR&D technical information exchange meetings with industry; coordinate IR&D technical information exchange meetings with industry; promote increased voluntary company submission of IR&D project descriptions to DTIC for CD-ROM dissemination. Promote the utilization of industry IR&D results in DON R&D program planning. Strengthen and streamline the Navy Scientific and Technical Information Program (STIP) and improve the DTIC interface to take maximum advantage of R&D programs of the other Services and to maximize the dissemination of already developed information. Expand outreach activities to make appropriate research and development (R&D) results available to private sector for commercialization. Promote R&D product accessibility through support of databases at the laboratory, headquarters, and DoD levels; facilitate CRADA and Cooperative Agreement initiation, and support technical assistance CRADAs. Employ available advanced data gathering/dissemination techniques in support of all these efforts.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605804N

PROGRAM ELEMENT TITLE: Technical Information Services

PROJECT NUMBER: R0835  
PROJECT TITLE: Technical Information Services

## 4. (U) FY 1997 PLAN:

- (U) (\$1,946) Coordinate and facilitate data gathering efforts for information describing Navy requirements for industry. Fund the NARDIC. Emphasize the utilization of IR&D products by coordinating IR&D technical exchange meetings between industry and government, facilitating company reporting of IR&D programs and Navy access to them. Coordinate and facilitate the Navy STIP effort and utilize the DTIC interface so as to gain maximum advantage of previous and on-going contract and in-house supported work. Continue to support CRADA and Cooperative Agreement initiation efforts at Navy laboratories. Continue to promote marketing activities by laboratories. Continue to promote R&D product availability by supporting application of advanced information technology techniques at the laboratory, Navy headquarters, and DoD levels.

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
	14,113	1,776	XXX	XXX
(U) FY 1995 Appropriated:	XXX	4,776	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUFG:	+217	+2,922	XXX	XXX
(U) FY 1996/97 PRESBUFG Submit:	14,330	4,698	2,027	1,946

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1994 funding increase is due to end of year execution update (+217). FY 1995 funding increase is due to Congressional plus-up (+3000), Congressional undistributed reductions for university research (-8), travel (-2), and assessment for Small Business Innovative Research (-68).

(U) Schedule: Not applicable.

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605804N

PROGRAM ELEMENT TITLE: Technical Information  
Services

PROJECT NUMBER: R0835

PROJECT TITLE: Technical Information  
Services

DATE: February 1995

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

Page 131-4 of Pages 131-4

Exhibit R-2

# UNCLASSIFIED

071

# UNCLASSIFIED

1  
BUDGET ACTIVITY: 6  
FY 1996 POTENTIAL BUDGET ITEM JUSTIFICATION SHEET  
PROGRAM ELEMENT: 0605853N  
DATE: Feb 1995  
(U) COST: (Dollars in Thousands)  
PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0115 SACLAN Anti-Submarine Warfare (ASW) Research Center	304	274	271	288	307	363	372	383	CONT.	CONT.
R0231* ASW System Support	1,882	1,594	0	0	0	0	-0-	-0-	-0-	-0-
R0905* Naval Warfare Tactical Analysis	1,668	2,588	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
R0149 International Cooperative RDT&E	796	1,214	1,756	1,693	1,731	2,024	2,083	2,144	CONT.	CONT.
R1767 Naval War College/Center for Naval Warfare Studies	1,254	1,134	1,665	1,679	1,707	1,736	1,776	1,818	CONT.	CONT.
R2146 Science/Eng. Exch Prog.	0	687	0	0	0	0	0	0	0	0
X1795* C3CM Decision Aid System	1,883	1,800	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
X2221* Assessment Program	-0-	-0-	11,730	10,388	11,638	14,943	15,366	15,803	CONT.	CONT.
X2222**Naval Modeling and Simulation	0	4,949	0	5,015	5,017	5,066	5,002	5,020	CONT.	CONT.
TOTAL	7,787	9,291	20,371	19,063	20,400	24,132	24,599	25,168	CONT.	CONT.

\* Project X1991 (P.E. 0603763N) and Projects R0231, R0905, and X1795 (P.E. 0605853N) were consolidated into new project X2221 in FY 1996.  
\*\* New Start in FY 1996

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides management and technical support for several national and international projects.

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FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) Project R0115 provides for the salary and administrative costs to maintain the U.S. scientific staff assigned to the Supreme Allied Commander Atlantic, Undersea Research Center (SACLANTCEN), La Spezia, Italy. Additionally, R0115 supports collaboration between U.S./SACLANTCEN scientists, the lease/loan of equipment, and the purchase of expendables to support the Centre's scientific program.

(U) Projects R0231, R0905, and X1795 provide analytical and management support to the Planning and Programming segments of the Planning, Programming and Budgeting (PPBS). These projects support the development of annual joint mission area assessments which provide the analytical underpinnings and basis for programmatic decisions by the Navy's top leadership during the Planning and Programming phases of the PPBS process.

(U) Project R0149 provides program management, execution, and support to implement a broad range of cooperative naval research and development (R&D) initiatives with allied and friendly nations. Potential cooperative programs are pursued to fulfill established operational requirements, enhance U.S./allied interoperability and standardization, obtain unique foreign technologies, and reduce U.S. developmental and production costs. Such efforts result in:

- \* (U) Development and negotiation of approximately 25 international RDT&E Memoranda of Understanding with allied and friendly nations.
- \* (U) Management of over 300 information exchange agreements.
- \* (U) Participation in armaments cooperation fora including the Conference of NATO Armaments Directors groups (e.g., the NATO Naval Armaments Group), Senior National Representative (SNR) consultation, and the Technical Cooperative Program.

(U) Project R1767 supports the Naval War College (NWC) in formulating and developing strategy and campaign alternatives. Under this project, the NWC provides continuing support to the Chief of Naval Operations Strategic Studies Group, the Center for Naval Warfare Studies, and other CNO, UNIFIED, and Fleet CINC projects in the area of multi-national cooperation and command, control, communications and intelligence.

(U) Project X2221 Funds were consolidated from Project X1991 (P.E. 0603763N) and Projects R0231, R0905, and X1795 (P.E. 0605853N) into this new project in FY 1996. Project X2221 provides analytical and management support to the planning and programming segments of the Navy Planning, Programming and Budgeting System (PPBS). This project supports the development of annual Joint Mission Area/Investment Balance Review assessments which provide the analytical underpinnings and basis for programmatic decisions made by the Navy's top leadership during the Planning and Programming Phases of the PPBS process.

Page 132- 2 of 132-34 Pages

Exhibit R-2

# UNCLASSIFIED

073



# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) Project X2222 New start in FY 1996. Project X2222 provides the overarching policy, coordination and technical support for naval modeling and simulation. This project responds to Congressional guidance to improve modeling and simulation focus, coordination and oversight. It enhances development and execution of a coordinated Naval M&S program, including distributed simulation tool development, M&S incorporation with C4I systems and embedded training systems, and an orderly process of model Verification, Validation and Accreditation required by current directives.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: These programs are funded under RDT&E Management Support because it supports the operations and installations required for general research and development use.

Page 132- 3 of 132-34 Pages

Exhibit R-2

# UNCLASSIFIED

074

UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL
ROLL5 SACLAN Anti-Submarine Warfare Research Center	304	274	271	288	307	363	372	383	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides for salary and administrative costs for U.S. Navy scientists at the NATO Supreme Allied Commander Atlantic, Undersea Research Center (SACLANTCEN), La Spezia, Italy. It also provides for all U.S. direct support to SACLANTCEN for administering requests for equipment, other assets, services, and to foster scientific collaboration between the U.S. and SACLANTCEN. The Center's unique research facilities and reservoir of oceanographic/acoustic data bases and knowledge are used to augment and complement U.S. Navy ASW related research.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$134) Supported joint U.S./SACLANTCEN development of a device to measure shear strength of marine sediments in shallow water. Applied to mine burial predictions. This was the second part of the FY-93 work to develop an insitu capability to predict mine burial probability.
- (U) (\$ 40) U.S. and SACLANTCEN collaborated to complete the evaluation of mine countermeasure (MCM) models from the various NATO nations.
- (U) (\$ 36) Collaborated with SACLANTCEN to complete data analysis of SACLANTCEN oceanographic data, in particular surface drifter data.
- (U) (\$ 20) Leased hydrophones for use in joint U.S./SACLANTCEN experiments.
- (U) (\$ 13) Provided support for U.S. participation in the annual SACLANTCEN Summer Research Assistants program.
- (U) (\$ 35) Provided support for the U.S. Scientific Committee National Representative (SCNR), his alternate and the U.S. National Liaison Officer to attend biannual SCNR meetings. Also includes funds for ONR scientists to visit the Centre to augment U.S. programs.

UNCLASSIFIED

075

# UNCLASSIFIED

FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: R0115

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT TITLE: SACLANT ASW Research Center

- (U) (\$ 2) Provided measurement equipment and lab equipment.
  - (U) (\$ 10) Provided for U. S. scientists at SACLANTCEN to attend scientific meetings and U.S. laboratories.
  - (U) (\$ 2) Provided for Russian scientist to attend SACLANTCEN inversion conference.
  - (U) (\$ 12) Collaborated with SACLANTCEN to analyze shallow water tides data.
2. (U) FY 1995 PLAN:
- (U) (\$ 50) Collaborate with SACLANTCEN and NATO nations in support of Littoral Warfare.
  - (U) (\$ 18) Lease hydrophones for joint experiments with SACLANTCEN.
  - (U) (\$ 22) Provide support for U.S. representative, his alternate and the U.S. National Liaison Officer to attend biannual SCNR meetings.
  - (U) (\$ 16) Provide support for the U.S. participation in the annual SACLANTCEN Summer Research Assistants program.
  - (U) (\$ 61) Collaborate with SACLANTCEN to develop rapid assessment for shallow water areas.
  - (U) (\$107) Collaborate with SACLANTCEN in the development of shallow mine countermeasure predictions.
3. (U) FY 1996 PLAN:
- (U) (\$ 18) Lease hydrophones for use in joint U.S./SACLANTCEN experiments.
  - (U) (\$ 17) Provide support for U.S. participation in the annual Summer Research Assistants program.
  - (U) (\$ 66) Collaborate with SACLANTCEN in development of a Virtual Ocean data base.
  - (U) (\$ 71) Collaborate with SACLANTCEN on Mine Countermeasure issues.
  - (U) (\$ 70) Collaborate with SACLANTCEN in shallow water and model development of interest to the Navy.
  - (U) (\$ 29) Provide support for the U.S. SCNR representative, his alternate and the U.S. National Liaison Officer to attend biannual SCNR meetings.

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FY 1996 RDT&E.N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605R53M

PROJECT NUMBER: R0115

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT TITLE: SACLANT ASW Research Center

## 4. (U) FY 1997 PLAN:

- (U) (\$ 18) Provide support for U.S. participants in the annual Summer Research Assistants program.
- (U) (\$ 65) Collaborate with SACLANTCEN in development of a Virtual Ocean data base.
- (U) (\$ 80) Collaborate with SACLANTCEN on Mine Countermeasure issues.
- (U) (\$ 75) Collaborate with SACLANTCEN in shallow water model development of interest to the Navy.
- (U) (\$ 30) Provide support for U.S. SCNR representative, his alternate and the U.S. National Liaison Officer to attend biannual SCNR meetings.
- (U) (\$ 20) Lease hydrophones for use in joint U.S./SACLANTCEN experiments.

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:

FY 1994  
304

FY 1995  
297

FY 1996

FY 1997

(U) FY 1995 Appropriated:

(U) Adjustments from Approp/FY95 PRESBU DG

-23

(U) FY 1996/97 PRESBU DG Submit:

304

274

271

288

## (U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: Reduction in FY 1995 reflect Congressional undistributed reductions for University Research (-21) and for SBIR tax (-2)
- (U) Schedule: Not applicable
- (U) Technical: Not applicable

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

Not Applicable.

# UNCLASSIFIED

077

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: R0115

PROGRAM ELEMENT TITLE: Management, Technical and  
International Support

PROJECT TITLE: SACLANT ASW Research Center

(U) RELATED RDT&E:

(U) PE 0601153N (Defense Research Sciences)  
(U) PE 0602314N (Undersea Warfare Surv Tech)

(U) 0603207N (Air/Ocean Tactical Applications)  
(U) 0603785N (Combat Systems Oceanographic Performance Assessments)

D. (U) SCHEDULE PROFILE:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>TO COMPLETE</u>
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Program  
Milestones

Engineering  
Milestones

T&E  
Milestones

Contract  
Milestones

Not applicable for BA 6

# UNCLASSIFIED

# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0231 ASW System Support	1,882	1,594	-0-	-0-	-0-	-0-	-0-	-0-		
Funds transferred to Project X2221 in FY 1996										

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: R0231, Anti-Submarine Warfare (ASW) System Support. This project develops, validates and reviews the Navy's Investment Strategy through the Joint Mission Area Assessment process. Conducts analyses to define requirements, assess programs and performance, and make cost/performance tradeoffs across Joint Mission/Support Areas. Supports development of ASW architectures and development, and maintenance of ASW models.

### (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

#### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$1,614) Continue examining Force Structure versus Cost Effectiveness in specific scenarios across Joint Mission/Support Areas.
- (U) (\$ 200) Develop database analysis tool for programmatic and financial information.
- (U) (\$ 45) Continue to support to Naval Post Graduate School.
- (U) (\$ 40) Continue the ASW model maintenance and development initiative.

#### 2. (U) FY 1995 PLAN:

- (U) (\$1,823) Continue effort in determining most cost effective forces required across all Joint Mission and Support Areas. Major emphasis is placed on trade-off analysis with consideration to all warfare tasks including ASW, Strike Warfare, Anti-Surface Warfare, Mine Warfare, Amphibious Warfare, Anti-Air Warfare, Naval Special Warfare, Logistics, Space and Electronic Warfare and Intelligence, Manpower, Personnel and Training, Readiness and Sustainability, Overseas Presence, and Surveillance how they impact Battle Space Dominance, Power Projection, Force Sustainment, and Command/Control and Surveillance. This effort has direct input into all Joint Mission Area and Support Area Assessment analyses and therefore impacts the Investment Balance Review upon which the Navy bases its Investment Strategy.

# UNCLASSIFIED

079

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: R0231

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT TITLE: ASW System Support

- (U) (\$ 45) Continue to support Naval Post Graduate School in its effort in ASW research and advance studies.
- (U) (\$ 40) Continue ASW model maintenance and development initiative.

3. (U) FY 1996 PLAN:

- (U) Funds transferred to project X2221 in FY 1996.

4. (U) FY 1997 PLAN:

- (U) Funds transferred to project X2221 in FY 1996.

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	1889	1908	1791	1514
(U) Adjustments from PRESBUDG:	+10	0	-1791	-1514
(U) FY 1996/97 OSD Budget Submit:	1889	1908	0	0

(U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: Funds transferred to Project X2221
- (U) Schedule: Not applicable
- (U) Technical: Not applicable

# UNCLASSIFIED

# UNCLASSIFIED

BUDGET ACTIVITY: 6      FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET      DATE: Feb 1995  
PROGRAM ELEMENT: 0605853N      PROJECT NUMBER: R0231  
PROGRAM ELEMENT TITLE: Management, Technical and PROJECT TITLE: ASW System Support  
International Support

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)  
Not Applicable.

## RELATED RDT&E.

(U) Not applicable

## D. (U) SCHEDULE PROFILE.

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>TO COMPLETE</u>
Program Milestones					
Engineering Milestones					
T&E Milestones					
Contract Milestones					

Not applicable for BA 6

# UNCLASSIFIED



# UNCLASSIFIED

DATE: Feb 1995

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0905 Naval Warfare Tactical Analysis	1,668	2,588	-0-	-0-	-0-	-0-	-0-	-0-		
Funds transferred to Project X2221 in FY 1996										

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: R0905, Naval Warfare/Tactical Analyses. This project provides analytical and management support to the Deputy Chief of Naval Operations for Resources, Warfare Requirements, and Assessments within all Joint Mission and Support Areas, including Littoral, Space and Electronic Warfare, Strike, Surveillance, Strategic Deterrence, Readiness and Sustainability, Sealift, and Manpower, Personnel and Training. Funds are used to conduct continuing analyses of Navy's capabilities and limitations in execution of these missions.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$1,039) Continue to support Joint Mission and Support Area assessments as listed above.
  - (U) (\$ 612) Continue to support OSPREY REINDEER.
2. (U) FY 1995 PLAN:
  - (U) (\$2,061) Continue to support Joint Mission and Support Area assessments as listed above.
  - (U) (\$ 827) Continue to support OSPREY REINDEER.
3. (U) FY 1996 PLAN:
  - (U) Funds transferred to project X2221 in FY 1996.
4. (U) FY 1997 PLAN:
  - (U) Funds transferred to project X2221 in FY 1996.

# UNCLASSIFIED

UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605853N      PROJECT NUMBER: R0905  
PROGRAM ELEMENT TITLE: Management, Technical and International Support      PROJECT TITLE: Naval Warfare Tactical Analysis

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
	1631	2888	2506	2476
(U) Adjustments from PRESBUDG:	+20	0	-2506	-2476
(U) FY 1996/97 OSD Budget Submit:	1651	2888	0	0

(U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: Funds transferred to Project X2221
- (U) Schedule: Not applicable
- (U) Technical: Not applicable

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

Not Applicable.

UNCLASSIFIED

083

# UNCLASSIFIED

## RDT&E,N RUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605853N      PROJECT NUMBER: R0905  
PROGRAM ELEMENT TITLE: Management, Technical and International Support      PROJECT TITLE: Naval Warfare Tactical Analysis

### RELATED RDT&E:

(U) Not applicable

### D. (U) SCHEDULE PROFILE:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>TO COMPLETE</u>
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Program  
Milestones

Engineering  
Milestones

T&E  
Milestones

Contract  
Milestones

Not applicable for BA 6

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

## PROJECT

PROJECT NUMBER & TITLE	FY1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0149 International Cooperative RDT&E	796	1,214	1,756	1,693	1,731	2,024	2,083	2,144	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides program management, execution, and support to implement a broad range of cooperative naval research and development (R&D) initiatives with allied and friendly nations. Potential cooperative programs are pursued to fulfill established operational requirements, enhance U.S./allied interoperability and standardization, obtain unique foreign technologies, and reduce U.S. developmental and production costs. Such efforts result in:

- \* (U) Development and negotiation of approximately 25 International RDT&E Agreements with allied and friendly nations.
- \* (U) Management of over 300 information exchange agreements.
- \* (U) Participation in armaments cooperation fora including the Conference of NATO Armaments Directors groups (e.g., the NATO Naval Armaments Group), Senior National Representative (SNR) consultation, and The Technical Cooperative Program.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$ 80) Supported DoN participation at SNR Conferences with allies to harmonize operational requirements and identify candidate projects for collaboration.
- (U) (\$256) Continued to support DoN participation in U.S./allied data exchange conferences as well as an on-going review of all information exchange agreements in order to ensure they target current key technologies.
- (U) (\$364) Continued to update and maintain the DoN data bases for drafting, negotiating, managing and tracking of proposed International Agreements (IAs) for "high leverage/high payoff" R&D technology base cooperative projects with key allies and friendly nations. Agreements concluded include: the Multifunction Information Distribution System with Germany, France, Italy, and Spain, and the Intercooled Recuperative Engine and the Cooperative OUTBOARD Logistics Update with the United Kingdom.

# UNCLASSIFIED

085

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: R0149

PROGRAM ELEMENT TITLE: Management, Technical

PROJECT TITLE: International Cooperative RDT&E

and International Support

- (U) (\$ 25) Supported to the Tri-Service Project Reliance Ad Hoc International Programs Working Group in identifying and pursuing cooperative opportunities with allies in critical technology areas.
  - (U) (\$ 27) Maintained engineers and scientists who were assigned to the Scientist/Engineer Exchange Program (SEEP).
  - (U) (\$ 44) Negotiated cooperative IAs with the assistance of NAVSURFWARREN CARDEROCKDIV.
2. (U) FY 1995 PLAN:
- (U) (\$100) Continue to support DoN participation at SNR Conferences with allies for harmonization of requirements and identification of potential collaborative R&D projects.
  - (U) (\$350) Continue to support DoN participation in U.S./allied data exchange conferences to identify foreign technologies and R&D projects in which the Navy may desire to collaborate as well as the on-going review to initiate/revise/terminate data exchange agreements (DEAs) to target new technologies and expand where appropriate, to include exchanges with Former Soviet Union (FSU) countries.
  - (U) (\$500) Continue to update and maintain the DoN data bases for drafting, negotiating, managing and tracking of proposed IAs for "high leverage/high payoff" R&D technology base cooperative projects with key allies and friendly nations.
  - (U) (\$150) Provide support to the Tri-Service Project Reliance Ad Hoc International Programs Working Group in identifying and pursuing cooperative opportunities with allies in critical technology areas.
  - (U) (\$ 2) Maintain engineers and scientists who are assigned to foreign research facilities with critical technologies under the SEEP.
  - (U) (\$112) Continue to fund the efforts of Systems Commands (SYSCOMs) and laboratories in researching and negotiating international cooperative projects.

3. (U) FY 1996 PLAN:

- (U) (\$100) Continue to support DoN participation at SNR Conferences with allies for harmonization of requirements and identification of potential collaborative R&D projects.
- (U) (\$350) Continue to support DoN participation in U.S./allied data exchange conferences to identify foreign technologies and R&D projects in which the Navy may desire to collaborate as well as the on-going review to initiate/revise/terminate DEAs to target new technologies and expand where appropriate, to include exchanges with FSU countries.

Page 132- 15 of 132-34 Pages

Exhibit R-2

# UNCLASSIFIED

086

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: R0149

PROGRAM ELEMENT TITLE: Management, Technical  
and International Support

PROJECT TITLE: International Cooperative RDT&E

- (U) (\$500) Continue to update and maintain the DoN data bases for drafting, negotiating, managing and tracking of proposed IAs for "high leverage/high payoff" R&D technology base cooperative projects with key allies and friendly nations.
- (U) (\$100) Provide support to the Tri-Service Project Reliance Ad Hoc International Programs Working Group in identifying and pursuing cooperative opportunities with allies in critical technology areas.
- (U) (\$600) Maintain a level of Navy participation in the SEEP at approximately six scientists/engineers. Continue to conduct post-assignment analysis of scientists/engineers to better target assignments with emerging technologies and programs at foreign research establishments.
- (U) (\$106) Continue to fund the efforts of SYSCOMS and laboratories in researching and negotiating international cooperative projects.

## 4. (U) FY 1997 PLAN:

- (U) (\$100) Continue to support DoN participation at SNR Conferences with allies for harmonization of requirements and identification of potential collaborative R&D projects.
- (U) (\$350) Continue to support DoN participation in U.S./allied data exchange conferences to identify foreign technologies and R&D projects in which the Navy may desire to collaborate as well as the on-going review to initiate/revise/terminate DEAs to target new technologies and expand where appropriate, to include exchanges with FSU countries.
- (U) (\$500) Continue to update and maintain the DoN data bases for drafting, negotiating, managing and tracking of proposed IAs for "high leverage/high payoff" R&D technology base cooperative projects with key allies and friendly nations.
- (U) (\$100) Provide support to the Tri-Service Project Reliance Ad Hoc International Programs Working Group in identifying and pursuing cooperative opportunities with allies in critical technology areas.
- (U) (\$550) Maintain the level of Navy participation in the SEEP at approximately six scientists/engineers. Continue to conduct post-assignment analysis of scientists/engineers to better target assignments with emerging technologies and programs at foreign research establishments.
- (U) (\$ 93) Continue to fund the efforts of SYSCOMS and laboratories in researching and negotiating international cooperative projects.

Page 132- 16 of 132-34 Pages

Exhibit R-2

# UNCLASSIFIED

087

# UNCLASSIFIED

FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: R0149

PROGRAM ELEMENT TITLE: Management, Technical and  
International Support

PROJECT TITLE: International Cooperative  
RDT&E

## B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1995 President's Budget:	796	1,325		
(U) FY 1995 Appropriated:				
(U) Adjustments from Approp/FY 95 PRESBUDG:		-111		
(U) FY 1996/97 PRESBUDG Submit:	796	1,214	1,756	1,693

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 reduction is due to Congressional undistributed cuts for University Research (-2), Consulting Services (-99), travel (-1), and cut for SBIR(-9)

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

## C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable

UNCLASSIFIED

088

# UNCLASSIFIED

FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET      DATE: Feb 1995

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605853N      PROJECT NUMBER: R0149

PROGRAM ELEMENT TITLE: Management, Technical      PROJECT TITLE: International Cooperative RDT&E

and International Support

## (U) RELATED RDT&E:

- (U) PE 0603790D (Nunn Armaments Cooperation)
- (U) PE 0605130D (Foreign Comparative Testing)

## D. (U) SCHEDULE PROFILE:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>TO COMPLETE</u>
Program Milestones					
Engineering Milestones					
T&E Milestones					
Contract Milestones					
Not applicable for BA 6					

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

## PROJECT

PROJECT NUMBER & TITLE	FY1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R1767 Naval War College/Center for Naval Warfare Studies	1,254	1,134	1,665	1,679	1,707	1,736	1,776	1,818	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Naval War College (NWC) research activities serve as a focal point, stimulus, and major source of strategic and campaign thought within the Navy. These efforts generate strategy and campaign alternatives, provide for evaluation through wargaming methodologies, and provide recommendations to the Chief of Naval Operations (CNO) and fleet commanders regarding the formulation and execution of strategy.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$540) Conducted strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC taskings in such areas as nuclear arms proliferation, multi-national cooperation options, U.N. Peacekeeping, Pacific Basin options, SECNAV/CNO Program Objective Memorandum (POM), force structure and strategic games.
- (U) (\$664) Conducted major wargames culminating in Global '94, involving over 1,200 participants from over 40 different organizations to assess the global security environment.
- (U) (\$ 50) Provided for selected NWC students to conduct advanced research projects.

### 2. (U) FY 1995 PLAN:

- (U) (\$550) Conduct strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC taskings in such areas as nuclear proliferation, multi-national cooperation options, U.N. Peacekeeping, Pacific Basin options, SECNAV/CNO POM, force structure and strategic games and commence emergent FY 1995 taskings.
- (U) (\$534) Conduct major wargames culminating in Global '95.
- (U) (\$ 50) Provide for selected NWC students to conduct advanced research projects.

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE:

Management, Technical  
and International Support

PROJECT NUMBER: R1767

PROJECT TITLE: Naval War College/Center for Naval  
Warfare Studies

### 3. (U) FY 1996 PLAN:

- (U) (\$1000) Conduct strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC taskings in such areas as nuclear proliferation, multi-national cooperation options, U.N. Peacekeeping, Pacific Basin options, SECNAV/CNO POM, force structure and strategic games and commence emergent FY 1996 taskings.
- (U) (\$ 609) Conduct major wargames culminating in Global '96.
- (U) (\$ 56) Provide for selected NWC students to conduct advanced research projects.

### 4. (U) FY 1997 PLAN:

- (U) (\$ 950) Conduct strategic studies in response to SECNAV, CNO, UNIFIED, and Fleet CINC taskings.
- (U) (\$ 671) Conduct major wargames culminating in Global '97.
- (U) (\$ 58) Provide for selected NWC students to conduct advanced research projects.

# UNCLASSIFIED

091

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: R1767

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT TITLE: Naval War College/Center for Naval Warfare Studies

## B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1995 President's Budget:	1,254	1,298		
(U) FY 1995 Appropriated				
(U) Adjustments from Approp/FY 95 PRESBUDG:		-164		
(U) FY 1996/97 PRESBUG Submit:	1,254	1,134	1,665	1,679

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 reduction is due to congressional undistributed cuts for university research (-2), consulting services (-151), travel (-1) and cut for SBIR (-10).

(U) Funding: Not applicable.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

## C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable

# UNCLASSIFIED

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BUDGET ACTIVITY: 6      FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET      DATE: Feb 1995  
PR&PAM ELEMENT: 0605853N      PROJECT NUMBER: R1767  
PR&PAM ELEMENT TITLE: Management, Technical and PROJECT TITLE: Naval War College/Center for  
International Support      Naval Warfare Studies

## (U) RELATED RDT&E:

( ) PE ( )  
( ) PE ( )      Not applicable

## D. (U) SCHEDULE PROFILE:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>TO COMPLETE</u>
Program Milestones					
Engineering Milestones					
T&E Milestones					
Contract Milestones					

Not Applicable for BA 6

# UNCLASSIFIED

093

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X1795 C3CM Decision Aid System										
	1,883	1,800	-0-	-0-	-0-	-0-	-0-	-0-	N/A	N/A
Funds transferred to Project X2221 in FY 1996										

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Project X1795, Command, Control and Communications Countermeasure (C3CM) Decision Aid System. The C3CM Decision Aid project provides all source C3CM simulation and analysis systems that simulate, in fine detail, analytical cases ranging from one-on-one to global operational situations. It supports development of warfare system architecture and Space and Electronic Warfare (SEW) systems through effectiveness trade-off analyses. A key element of the C3CM Decision Aid System is the SEW Simulator (SEWSIM), which is an operations analysis tool designed for use in assessing the projected effectiveness of current and future SEW systems under realistically simulated operating conditions in a variety of threat scenario environments. These simulation systems are used to compute specific SEW related measures of effectiveness. Applications include Joint Mission Assessments, Investment Balance Reviews (IBR), Cost and Operational Effectiveness Analyses, and other SEW assessments.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$1,383) Assessed effectiveness of SEW systems in JCS approved scenarios in support of IBRs and Joint Mission Area Assessments. Included the concept of COPERNICUS and alternative implementation approaches.
  - (U) ( 78) Expanded post-processing analysis capabilities.
  - (U) (\$ 324) Used algorithms in SEWSIM to support the implementation of the Navy Modeling and Simulation Corporate Strategy.
  - (U) (\$ 98) Performed software and database enhancements to enable SEWSIM to maintain pace with platform and system updates and threat enhancements, including the characterization and fusion at each Command and Control mode.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 605853N

PROGRAM ELEMENT TITLE: Management, Technical

and International Support

PROJECT NUMBER: X1795

PROJECT TITLE: C3CM Decision Aid System

2. (U) FY 1995 PLAN:

- (U) (\$1,300) Assess effectiveness of SEW systems in DPG/JCS approved scenario in support of IBRs and Joint Mission Area Assessments.
- (U) (\$ 400) Begin transition of SEWSIM capability into Standard Simulation and Database Architecture.
- (U) (\$ 100) Continue Data Base Enhancement and Research to improve SEW modeling capabilities.

3. (U) FY 1996 PLAN:

- (U) Funds transferred to Project X2221 in FY 1996.

4. (U) FY 1997 PLAN:

- (U) Funds transferred to Project x2221 in FY 1996.

Page 132- 24 of 132-34 Pages

Exhibit R-2

# UNCLASSIFIED

095

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X1795

PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT TITLE: C3CM Decision Aid System

## B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1995 President's Budget:	1883	1862		
(U) FY 1995 Appropriated:		1862		
(U) Adjustments from Appropriated/FY 95 PRESBUDG:	0	-62		
(U) FY 1996/97 PRESBUDG Submit:	1883	1800		

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 95 was decreased by \$62K (\$3K Univ Research; \$48K CS Reduction; \$2K Travel; \$9K SBIR). Funds transferred to new Project X2221 in FY 1996

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

## C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

Not applicable

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X1795

PROGRAM ELEMENT TITLE: Management, Technical and PROJECT TITLE: C3CM Decision Aid System  
International Support

## (U) RELATED RDT&E:

( ) PE ( )  
( ) PE ( ) Not applicable

## D. (U) SCHEDULE PROFILE:

FY 1994

Program  
Milestones

FY 1995

Engineering  
Milestones

FY 1996

Not Applicable for BA 6

FY 1997

TO COMPLETE

T&E

Milestones

Contract

Milestones

Page 132- 26 of 132-34 Pages

Exhibit R-2

# UNCLASSIFIED

097



# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support.

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X2221 Assessment Program	-0-	-0-	11,730	10,388	11,638	14,943	15,366	15,803	CONT.	CONT.
Project X1991 (P.E. 0603763N) and Projects R0231, R0905, and X1795 (P.E. 0605853N) were consolidated into project X2221 in FY 1996.										

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: X2221, Assessment Program consolidates analytical and management support to the Planning and Programming segments of the Navy Planning, Programming and Budgeting System (PPBS). This project supports the development of annual Joint Mission Area/Investment Balance Review assessments which provide analytical underpinnings and basis for programmatic decisions made by the Navy's top leadership during the Planning and Programming phases of the PPBS process. Assessment program develops tools and analytical methodologies based on standards and technical recommendations as provided by the Naval Modeling and Simulation Program (X2222) and provides technical leadership for the analysis functional area of Naval Modeling and Simulation.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) N/A
2. (U) FY 1995 PLAN:
  - (U) N/A

# UNCLASSIFIED

098

# UNCLASSIFIED

## FY 1996 PDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X2221

PROGRAM ELEMENT TITLE: Management, Technical  
and International Support

PROJECT TITLE: Assessment Program

3. (U) FY 1996 PLAN:
- (U) (\$ 150) Develop, update and maintain detailed level of Navy Standard scenarios based on Defense Planning Guidance.
  - (U) (\$8,381) Perform Joint Mission Area/Support Area Assessments to support the interactive Investment Balance Review process. Efforts include Joint Strike, Joint Surveillance, Strategic Deterrence, Forward Presence, Joint Littoral, Joint SEW/I, and Strategic Sealift/Protection and their integration into the Investment Balance Review.
  - (U) (\$1,850) Continue to develop and accredit Joint Mission Area/Support Area tools and improve analytic methodology.
  - (U) (\$ 770) Using the standard simulation and database architecture developed by Naval Modeling & Simulation, rehost legacy models into the new framework, vastly improving the utility of these tools to the assessment process. Develop new tools that utilize models in the standard simulation and database architecture.
  - (U) (\$ 579) Continue to research and implement essential fleet enhancements provided by CNO's Tactical Support Group.
4. (U) FY 1997 PLAN:
- (U) (\$ 150) Develop, update and maintain detailed level Navy Standard scenarios based on Defense Planning Guidance.
  - (U) (\$7,460) Perform Joint Mission Area/Support Area assessments to support the interactive Investment Balance Review process. Efforts include Joint Strike, Joint Surveillance, Strategic Deterrence, Forward Presence, Joint Littoral, Joint SEW/I, and Strategic Sealift/Protection and their integration into the Investment Balance Review.
  - (U) (\$1,400) Continue to develop and accredit Joint Mission Area/Support Area tools and improve analytic methodology.
  - (U) (\$ 788) Using the standard simulation and database architecture developed by Naval Modeling and Simulation, rehost legacy models into the new framework, vastly improving the utility of these tools to the assessment process. Develop new tools that utilize models in the standard simulation and database architecture.
  - (U) (\$ 590) Continue to research and implement essential fleet enhancements provided by CNO's Tactical Support Group.

# UNCLASSIFIED

099

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X2221

PROGRAM ELEMENT TITLE: Management, Technical and  
International Support

PROJECT TITLE: Assessment Program

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:

FY 1994

FY 1995

FY 1996

FY 1997

(U) FY 1995 Appropriated:

(U) Adjustments from Appropriated/FY95 PRESBUDG:

(U) FY 1996/97 PRESBUDG Submit:

11,730

10,388

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: Aggregates several line items which support the assessment process into this single line item.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

Not applicable.

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N  
PROGRAM ELEMENT TITLE: Management, Technical and International Support

PROJECT NUMBER: X2221  
PROJECT TITLE: Assessment Program

### (U) RELATED RDT&E:

( ) PE ( )  
( ) PE ( ) Not applicable.

### D. (U) SCHEDULE PROFILE:

Program Milestones	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>TO COMPLETE</u>
Engineering Milestones	Not applicable for BA 6				
T&E Milestones					
Contract Milestones					

# UNCLASSIFIED

# UNCLASSIFIED

DATE: Feb 1995

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical and International Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X2222 Naval Modeling and Simulation	-0-	-0-	4,949	5,015	5,017	5,066	5,002	5,020	CONT.	CONT.
New Start in FY 1996										

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: X2222, Naval Modeling and Simulation provides the overarching policy, coordination and technical support for Naval Modeling & Simulation. This project responds to Congressional guidance to improve modeling and simulation focus, coordination and oversight. It enhances development and execution of a coordinated Naval M&S program, including distributed simulation tool development, M&S incorporation with C4I systems and embedded training systems, and an orderly process of model verification, Validation and Accreditation required by current directives. This effort funds the Naval Modeling and Simulation Technical Support Group. This program leverages, assembles and consolidates program-specific Modeling and Simulation capabilities owned by Program Managers, Naval Warfare Centers, Laboratories, Federally Funded Research and Development Centers, and contractors. The increased use of Modeling and Simulation that results from this program are of significant benefit to the training, acquisition, RDT&E and military operations.

### (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) New start in FY 1996.
2. (U) FY 1995 PLAN:
  - (U) New start in FY 1996.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROGRAM ELEMENT TITLE: Management, Technical  
and International Support

PROJECT NUMBER: X2222

PROJECT TITLE: Naval Modeling & Simulation

## 3. (U) FY 1996 PLAN:

- (U) (\$1,592) Full Naval participation in the development and implementation of Distributed Interactive Simulation Industry standards and the application of distributed simulation to a wide variety of operational, research and development, training, and test and evaluation exercises.
- (U) (\$1,201) Naval Policy, coordination and technical support. Funds the Naval Modeling & Simulation Technical Support Group, which provides: the Naval Modeling and Simulation Catalog, Master Plan, and Investment Strategy; technical support to PEOs/DRPMs/Program Managers/Warfare Centers/Labs; and Naval technical interface to Industry, Joint, DOD, and other Services activities.
- (U) (\$1,388) Development of the standard simulation and database architecture for Naval Modeling & Simulation. Rehost legacy models into the framework. Develop new models in the standard simulation and database architecture.
- (U) (\$ 384) Naval contribution to the Aggregate Level Simulation Protocol development including functional validation and Joint exercise participation. Includes improvements to the Naval Wargaming Models to permit appropriate Joint participation.
- (U) (\$ 384) Development of the Verification, Validation and Accreditation (VVA) process. Implementation of the VVA process on new Naval Modeling & Simulation developments and Navy legacy models.

## 4. (U) FY 1997 PLAN:

- (U) (\$1,800) Full Naval participation in the development and implementation of Distributed Interactive Simulation Industry standards and the application of distributed simulation to a wide variety of operational, research and development, training, test and evaluation exercises.
- (U) (\$1,200) Naval Policy, coordination and technical support. Funds the Naval Modeling & Simulation Technical Support Group, which provides: annual updates to the Naval Modeling and Simulation Catalog, Master Plan, and Investment Strategy; continuing technical support to PEOs/DRPMs/Program Managers/Warfare Centers/Labs; and continuing Naval technical interface to Industry, Joint, DOD, and other services activities.
- (U) (\$1,200) Continue development of the standard simulation and database architecture for Naval Modeling and Simulation. Continued rehosting of legacy models into the framework and development of new models in the standard simulation and database architecture.

Page 132- 32 of 132-34 Pages

Exhibit R-2

# UNCLASSIFIED

103

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: Feb 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X2222

PROGRAM ELEMENT TITLE: Management, Technical and

PROJECT TITLE: Naval Modeling and Simulation

International Support

- (U) (\$ 408) Naval contribution to the Aggregate Level Simulation Protocol development including functional validation and Joint exercise participation. Includes improvements to the Naval Wargaming Models to permit appropriate Joint participation.

- (U) (\$ 407) Continue development of the VVA process, Validation and Accreditation (VVA) process. Continue implementation of the VVA process on new Naval Modeling & Simulation development and Navy legacy models.

## B. (U) PROGRAM CHANGE SUMMARY:

FY 1994 FY 1995 FY 1996 FY 1997

(U) FY 1995 President's Budget:

(U) FY 1995 Appropriated:

(U) Adjustments from Appropriated/FY95 PRESBUDG:

(U) FY 1996/97 PRESBUDG Submit:

4,949 5,015

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: Established specific line item for Naval Modeling & Simulation

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

## C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL

Not applicable

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Feb 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605853N

PROJECT NUMBER: X2222

PROGRAM ELEMENT TITLE: Management, Technical and International Support  
PROJECT TITLE: Naval Modeling & Simulation

(U) RELATED RDT&E:

( ) PE ( )  
( ) PE ( )

Not applicable

D. (U) SCHEDULE PROFILE:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>	<u>TO COMPLETE</u>
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Program  
Milestones

Engineering  
Milestones

T&E  
Milestones

Contract  
Milestones

Not applicable for BA 6

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605856N

PROGRAM ELEMENT TITLE: Strategic Technical Support

(U) COSTS: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0100 Biomedical Support for Submarine Systems										
	1,153	554	1,914	1,845	1,867	2,152	2,169	2,187	CONT.	CONT.
R0128 Management and Technical Support, Strategic										
	1,261	732	1,109	1,179	1,236	1,410	1,452	1,495	CONT.	CONT.
Z1038 Acoustic and Non-Acoustic Analysis Support										
	1,196	935	561	597	597	597	605	613	CONT.	CONT.
TOTAL	3,610	2,221	3,584	3,621	3,700	4,159	4,226	4,295	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) M0100 Biomedical Support for Submarine Systems - Provides biomedical knowledge necessary to increase effectiveness and enhance performance of critical submarine tasks with particular emphasis on development and assessment of improved visual and auditory sonar techniques to improve the operator's ability to detect, track and classify multiple targets. Recent rapid improvements in enemy operational capabilities now require reestablishment of this project to obtain maximum performance from all components of submarine sonar systems.

(U) R0128 Management and Technical Support, Strategic - Develops strategic and theater nuclear concepts, determines technology requirements, defines systems and options for strategic deterrence requirements for strategic force survivability, examines reentry system requirements in support of sea-based strategic (nuclear and conventional) deterrent systems, and establishes Navy Deterrent Command, Control and Communications requirements. It includes assessment of future strategic deterrent forces and capabilities, the implications of that deterrence on national security policy, and

DATE: February 1995

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605856N

PROGRAM ELEMENT TITLE: Strategic Technical Support

consequential force requirements and employment policies for deterrent forces. Develops policy recommendations concerning arms control and its effect on Naval forces, both nuclear and conventional. Evaluates the Navy's contribution to the national counterproliferation policy. This project provides unique support necessary to produce optimum future naval contributions to conventional and nuclear forces to provide strategic deterrence.

(U) Z1038 Acoustic and Non-Acoustic Analysis Support - Provides for research and development of new data collection and analysis techniques in support of sensor and weapons system development; provides for responsive support to sensor and weapons system development for enhanced signal exploitation and threat vulnerability characterization through technical analysis; develops exploitation techniques to determine the acoustic and non-acoustic vulnerabilities of diesel submarines in shallow water for regional conflict engagement planning.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

# FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605856N

PROGRAM ELEMENT TITLE: Strategic Technical Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0100 Biomedical Support for Submarine Systems	1,153	554	1,914	1,845	1,867	2,152	2,169	2,187	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Provides biomedical knowledge necessary to increase effectiveness and enhance performance of critical submarine tasks with particular emphasis on development and assessment of improved visual and auditory sonar techniques to improve the operator's ability to detect, track and classify multiple targets. Additionally, operator-machine interface and submarine habitability issues are investigated.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$604) Audio: Recommended specifications for active noise canceling sonar headsets. Delivered to NAVSEA report on sonar surveys. Provided signal-filtering techniques that enhance aural detection, classification, and tracking for generic sonar signals and noise backgrounds. Developed algorithms and performance assessments of temporal signal processing techniques to enhance aural classifications.
- (U) (\$364) Visual: Developed algorithm for filtering and colonizing Low Frequency Analysis Recording (LOFAR) data to include narrow, medium and broadband contacts in one image. Optimized display parameters for human performance and completed comparative studies with traditional displays. Began consultation for concept of Operations of NSSN (New SSN(Submarine)) combat system.
- (U) (\$185) Digital Audio: Reported on audibility of temporally reversed signals.

### 2. (U) FY 1995 PLAN:

- (U) (\$200) Audio: Report to NAVSEA degradations in audio circuitry of BQQ-5 sonar, with recommendations for improvements. Report virtual auditory display that facilitate increased auditory workload. Identify audio signal enhancement methods to optimize target identification.
- (U) (\$206) Visual: Develop recommendations for color coding the broadband bearing time displays using the

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605856N  
PROGRAM ELEMENT TITLE: Strategic Technical Support

PROJECT NUMBER: M0100  
PROJECT TITLE: Biomedical Support for Submarine Systems

predominant frequency emitted by the contact. Provide consultation for human factor issues and tradeoffs that arise during the design of NSSN combat systems.

- (U) (\$148) Digital Audio: Develop target based spectral enhancement for aural analysis and target tracking management.

3. (U) FY 1996 PLAN:

- (U) (\$760) Audio: Assess individual differences in virtual auditory displays to determine fidelity requirements for test bed implementation. Evaluate variable-rate playback of transient and steady-state acoustic signals.
- (U) (\$760) Visual: Human factors evaluations of the existing Active Tactical Decision Aide (ATDA), Ships Control Station (SCS), CO/OOD (Commanding Officer/Officer of the Deck) workstation and related consoles.
- (U) (\$394) Perception/Detection: Quantify statistical versus image based signal properties. Establish reliable individual susceptibility to stress measures.

4. (U) FY 1997 PLAN:

- (U) (\$725) Audio: Develop enhanced three-dimensional virtual auditory display with improved channel capacity for better target management and communications. Demonstrate binaural steerable beamformed display for aural analyst and broadband-search applications. Assess adaptive methods to efficiently optimize multiple-parameter signal-processing techniques.
- (U) (\$725) Visual: Prototype changes to the ATDA SCS CO/OOD workstations. Conduct visual search experiments to ensure symbol discriminability upon tactical graphics. Survey fleet regarding application of tactical graphics to specific display modes/meaning. Simulations of multi-sensor/multi-function displays on panel and head-mounted interfaces.
- (U) (\$395) Perception/Detection: Identify acoustic signal and features for recognition/classification that distinguish skilled from unskilled operators. Propose operator based/situation based workload distribution scheme for command and control.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605856M

PROJECT NUMBER: M0100

PROGRAM ELEMENT TITLE: Strategic Technical Support

PROJECT TITLE: Biomedical Support for  
Submarine Systems

B. (U) PROGRAM CHANGE SUMMARY

(U) FY 1995 President's Budget:	FY 1994 1,141	FY 1995 566	FY 1996 XXX	FY 1997 XXX
(U) FY 1995 Appropriated:	XXX	566	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUFG:	+12	-12	XXX	XXX
(U) FY 1996/97 PRESBUFG Submit:	1,153	554	1,914	1,845

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1994 funding increase is due to end-of-year execution update (+12). FY 1995 funding decrease is due to congressional undistributed cuts for university research (-12).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605856N

PROGRAM ELEMENT TITLE: Strategic Technical Support

(U) COST: (Dollars in Thousands)

PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
P0128 Management and Technical Support, Strategic	1,261	732	1,109	1,179	1,236	1,410	1,452	1,495	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Provide Strategic Force Structure analysis to aid CNO, SECNAV, JCS, and OSD in support of the National Military Strategy. Evaluate strategic force balance, capabilities, and survivability. Assess future needs and develop plans and testing requirements for future systems to meet those needs. Continually improve Strategic Forces to support national policy. Assess the strategic deterrence (conventional and nuclear) forces and capabilities in the Navy. Evaluate the Navy's contribution to national counterproliferation policy.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$250) Continued evaluation and improved Strategic Force Structure, survivability, targeting, command, control and communication (C3) networking, and SSBN deployments.
- (U) (\$731) Analyzed force structure to balance present and future strategic deterrence requirements and analyzed regional threats.
- (U) (\$70) Conducted a comprehensive review of nuclear posture.
- (U) (\$70) Analyzed U.S. Military and Naval roles in counterproliferation.
- (U) (\$60) Continued study of follow on questions for the Future Deterrence Study to provide a strategic vision of the Navy's role in deterrence during the 21st century.
- (U) (\$40) Analyzed strategic requirements to establish a floor for the number of required warheads.
- (U) (\$40) Analyzed means to deter third world actors.

2. (U) FY 1995 PLAN:

- (U) (\$500) Conduct feasibility study regarding employment of ATACMS on submarines.
- (U) (\$175) Continue to assess the strategic deterrence (conventional and nuclear) force structure and capability

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605856N

PROGRAM ELEMENT TITLE: Strategic Technical Support

in the Navy.

- (U) (\$30) Prioritize systems that contribute to deterrence. Continue development and application of methodology for measuring nuclear and conventional deterrence capability of weapons systems and platforms. Investigate the synergy between information warfare, surveillance and strategic deterrence.
- (U) (\$27) Assess the impact of Arms Control negotiations on SSBN force structure. Balance Force Structure to provide strategic deterrence to present and expected regional threats through 2010. Continue to analyze U.S. Military and Naval roles in counterproliferation.

3. (U) FY 1996 PLAN:

- (U) (\$225) Assess impact of Arms Control negotiations on SSBN force structure and warhead requirements and targeting concepts.
- (U) (\$175) Continually evaluate and improve Strategic Force Structure, survivability, targeting, C3 networking, and SSBN deployments.
- (U) (\$709) Develop and refine the strategic vision for strategic deterrence (both nuclear and conventional).
- Assess the capability and force structure of Navy programs with respect to their contributions to deterrence.

4. (U) FY 1997 PLAN:

- (U) (\$175) Continually evaluate and improve Strategic Force survivability, targeting, C3 networking, and SSBN deployments.
- (U) (\$225) Assess the impact of force structure revisions and warhead loading on SSBN deployments and operating schedules.
- (U) (\$779) Apply developed methodology for determining deterrence capability of weapons and platforms. Prioritize programs based on deterrence contributions. Reevaluate prioritization through the use of seminars and wargames.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605856N PROJECT NUMBER: R0128  
PROGRAM ELEMENT TITLE: Strategic Technical Support PROJECT TITLE: Management and Technical Support, Strategic

B. (U) PROGRAM CHANGE SUMMARY

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	1,261	985	XXX	XXX
(U) FY 1995 Appropriated:	XXX	985	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	0	-253	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	1,261	732	1,109	1,179

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 funding reduction is due to congressional undistributed cuts for university research (-2), consulting services (-239), travel (-1), and assessment for Small Business Innovative Research (-11).  
(U) Schedule: Not applicable.  
(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E:

(U) PE 0603311F (Advanced Strategic Missile System)  
(U) PE 0605864F (Test and Evaluation)

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1996 PDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605856N

PROGRAM ELEMENT TITLE: Strategic Technical Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
Z1038 Acoustic and Non-Acoustic Analysis Support	1,196	935	561	597	597	597	605	613	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Research and development of new data collection and analysis techniques in support of sensor and weapons system development; supports development of effective anti-submarine warfare (ASW) tactics and identification of target characteristics and vulnerabilities through technical analysis; provides unique hardware and software development at the Office of Naval Intelligence (ONI).

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$150) Developed database systems for customer on-demand access.
- (U) (\$346) Added processing tools for exploitation of diesel
- (U) (\$100) Refined — models, with emphasis on diesels.
- (U) (\$100) Researched new — characterization methods.
- (U) (\$250) Expanded shallow water environmental database and models.
- (U) (\$50) Refined — collection systems.
- (U) (\$25) Incorporated exploitation from — sites.
- (U) (\$25) Enhance —
- (U) (\$150) Continued support to overseas systems.

2. (U) FY 1995 PLAN:

- (U) (\$105) Continue development of computer aids to support on-demand, on-line access to the Database by Navy DOD and national consumers. Subject matter contained will be expanded.
- (U) (\$122) Continue development and production of processing tools for the exploitation of — of submerged patrolling diesel submarines.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605856N

PROJECT NUMBER: Z0138

PROGRAM ELEMENT TITLE: Strategic Technical Support

PROJECT TITLE: Acoustic and Non-Acoustic Analysis Support

- (U) (\$141) Refine the sonar target strength characterizations and assessments through continued research and development, and modeling.
- (U) (\$200) Continue development of shallow water propagation databases and their utility for supporting the for research, development, test and evaluation (RDT&E).
- (U) (\$67) Develop signal exploitation processing for maritime intelligence.
- (U) (\$100) Continue support to overseas sites.
- 3. (U) FY 1996 PLAN:
  - (U) (\$200) Continued development and implementation of digital signal processing tools for the exploitation of of diesel submarines and sea-launched weapons (supports littoral warfare planning and Fleet readiness).
  - (U) (\$272) Develop the metrics and transitional functions to allow accurate target simulation modeling of threat submarine and sea launched weapons database for and Fleet training).
  - (U) (\$89) Continue support to overseas sites; develop interfaces for electronic network transfer of studies for RDT&E community).
- 4. (U) FY 1997 PLAN:
  - (U) (\$236) Continued development and implementation of digital signal processing tools for the exploitation of of diesel submarines and sea-launched weapons (supports littoral warfare planning and Fleet readiness).
  - (U) (\$272) Continue development of metrics and transitional functions to allow accurate target simulation modeling of threat submarine and sea-launched weapon of interfaces from the national database for simulators/facilities (support RDT&E and Fleet training).
  - (U) (\$89) Continue support to overseas sites; continue to develop interfaces for electronic/network transfer of signals for S&T studies at ONI Suitland (supports S&T studies for RDT&E community).

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605856N  
PROGRAM ELEMENT TITLE: Strategic Technical Support

PROJECT NUMBER: Z0138  
PROJECT TITLE: Acoustic and Non-Acoustic  
Analysis Support

B. (U) PROGRAM CHANGE SUMMARY

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	1,200	994	XXX	XXX
(U) FY 1995 Appropriated:	XXX	994	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	-4	-59	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	1,196	935	561	597

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1994 funding reduction is due to end-of-year execution update (-4). FY 1995 funding reduction is due to congressional undistributed cuts for university research (-39), travel (-1), and assessment for Small Business Innovative Research (-19).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E:

(U) PE 0604784N (Distributed Surveillance Systems)

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605861N

PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management

(U) COST: (Dollars in Thousands)

## PROJECT

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0104 NAVMED Management Support										
	7,913	7,550	6,856	6,305	6,206	7,965	7,990	6,628	CONT.	CONT.
R0135 ONR Science and Technology Management										
	54,785	53,531	52,898	52,136	51,589	50,710	52,061	53,474	CONT.	CONT.
X0832 Central Management Support										
	1,077	1,108	1,247	1,130	1,133	1,296	1,330	1,367	CONT.	CONT.
R1855 Science/Engineering Training Support										
	1	554	0	0	0	0	0	0	0	4,732
TOTAL	63,776	62,743	61,001	59,571	58,928	59,971	61,381	61,469	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program supports the Office of Naval Research (ONR), small non-overhead distributing Navy R&D activities, and medical research laboratories. It pays salaries, rent, utilities, printing, supplies, materials, and other day-to-day costs that are necessary to support these Navy activities that administer and execute the Navy's R&D program. The vast majority of these costs are fixed costs which primarily support scientists and engineers working on the Navy Science and Technology Program. For overhead distributing activities, this program covers costs not chargeable to overhead or to customers.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

Pages 134-1 of 134-10 Pages

Exhibit R-2

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605861N

DATE: February 1995

PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management

(U) COST: (Dollars in Thousands)

### PROJECT

NUMBER &  
TITLE

	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0104 NAVMED Management Support	7,913	7,550	6,856	6,305	6,206	7,965	7,990	6,628	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports certain program-wide management and operational costs at the Naval Medical Research and Development Command and specified Naval Medical Research Laboratories that do not distribute overhead. Funds are used for general administrative expenses including salaries of support personnel, centralized technical services, common support costs under host-tenant agreements, routine maintenance and repair of buildings and costs of laboratory support provided by other agencies/commands.

### (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

#### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$7,913) Provided management support for operations at Naval Medical Research and Development Command Headquarters, three in-house laboratories and two detachments.

#### 2. (U) FY 1995 PLAN:

- (U) (\$7,550) Provide management support for operations at Naval Medical Research and Development Command Headquarters, three in-house laboratories and one detachment.

#### 3. (U) FY 1996 PLAN:

- (U) (\$6,856) Provide management support for operations at Naval Medical Research and Development Command Headquarters, three in-house laboratories and one detachment.

#### 4. (U) FY 1997 PLAN:

- (U) (\$6,305) Provide management support for operations at Naval Medical Research and Development Command Headquarters, three in-house laboratories and one detachment.

Pages 134-2 of 134-10 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995  
PROJECT NUMBER: M0104  
PROJECT TITLE: NAVMED Management Support

RUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605861N  
PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management

### B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994 7,913	FY 1995 7,476	FY 1996 XXX	FY 1997 XXX
(U) FY 1995 Appropriated:	XXX	7,476	XXX	XXX
(U) Adjustment from Appropriated/FY 1995 PRESBUDG:	-0-	+74	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	7,913	7,550	6,856	6,305

### (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: Funding increase in FY 1995 is due to a congressional adjustment for federal workforce/civilian personnel pay raise and locality pay (+100) and undistributed cuts for university research (-12), travel (-10), and an assessment for Small Business Innovative Research (-4).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

### C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) Related RDT&E:

(U) PE 0605862N (RDT&E,N Instrumentation Modernization) Funds investment items and general purpose equipment for activities supported by this program element. All Navy medical research and development programs receive central management support under this program element.

### D. (U) SCHEDULE PROFILE: Not applicable.

# UNCLASSIFIED

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605861N

PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management

(U) COST: (Dollars in Thousands)

## PROJECT

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0135 ONR Science and Technology Management	54,785	53,531	52,898	52,136	51,589	50,710	52,061	53,474	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports the Office of Naval Research (ONR) management and direction for the entire Navy Science and Technology program. ONR sponsors scientific advances which benefit all Joint Mission Areas/Support Areas, including Joint Strike and Joint Littoral Warfare, and supports the fleet's ability to operate from a position of technological superiority. Functions performed include: (1) scientific and technical direction of the nationwide Category 6.1 basic research program with colleges, universities, and Navy laboratories and warfare centers; (2) scientific and technical direction of the 6.2 exploratory development program through the Navy's R&D laboratories and warfare centers; (3) management and technical formulation of the Navy advanced technology development program (Category 6.3); (4) management, resource formulation, program assessment, and contract negotiation/administration of the entire Navy basic research and exploratory development program; (5) program management and administrative support to selected research programs of Ballistic Missile Defense Organization (BMDO), Advanced Research Projects Agency (ARPA), and Chief of Naval Operations (CNO); and (6) coordination of the Navy's Technology Base program within the context of total DoD/Government (e.g., National Science Foundation, National Academy of Sciences) R&D initiatives in order to maximize scientific advances. This project also supports ONR management and direction for the following Navy-wide programs: Small Business Innovation Research (SBIR), Naval Research Advisory Committee, Navy Patent Program, Navy Historically Black Colleges and Universities Program, Navy Manufacturing Technology Program and the SSBN Survivability Program. In addition, this program supports ONR's Navy-wide responsibilities in the negotiation and establishment of indirect cost rates for DoD-assigned universities and performance of contract administration for all DoD contracts/grants at all colleges and universities. This project funds salaries, rent, utilities, supplies, and other fixed costs at ONR Headquarters and field offices.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$54,785) The project provided for basic costs of the ONR headquarters and its field activities in support

Pages 134-4 of 134-10 Pages

Exhibit R-2

# UNCLASSIFIED



# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605861N      DATE: February 1995  
PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management      PROJECT NUMBER: R0135  
PROJECT TITLE: ONR Science & Technology Management

of the entire Navy Science and Technology program. Specifically, it paid the salaries of scientific and engineering personnel who direct the execution of the Navy's basic research (Category 6.1), exploratory development (Category 6.2), and advanced technology development (Category 6.3) programs at the nation's universities/colleges, Navy laboratories and warfare centers, and private industry. In addition to its Navy Science and Technology mission, ONR provided important program management and administrative support to BMDO, ARPA, and CNO. Almost all the funds in this project are fixed costs, such as salaries, building rent, communications, etc. The project provided support for the ONR headquarters, the ONR European Office (London), the ONR Asian Office (Tokyo), and field detachments.

## 2. (U) FY 1995 PLAN:

- (U) (\$53,531) The project continues to provide for basic costs of the ONR headquarters and its field activities in support of the entire Navy Science and Technology program. Specifically, it pays the salaries of scientific and engineering personnel who direct the execution of the Navy's basic research (Category 6.1), exploratory development (Category 6.2), and advanced technology development (Category 6.3) programs at the nation's universities/colleges, Navy laboratories and warfare centers, and private industry. In addition to its Navy Science and Technology mission, ONR provides important program management and administrative support to BMDO, ARPA, and CNO. Almost all the funds in this project will be fixed costs, such as salaries, building rent, communications, etc. The project continues to provide support for the ONR headquarters, the ONR European Office (London), the ONR Asian Office (Tokyo), and field detachments.

## 3. (U) FY 1996 PLAN:

- (U) (\$52,898) The project will continue to provide for basic costs of the ONR headquarters and its field activities in support of the entire Navy Science and Technology program. Specifically, it will pay the salaries of scientific and engineering personnel who direct the execution of the Navy's basic research (Category 6.1), exploratory development (Category 6.2), and advanced technology development (Category 6.3) programs at the nation's universities/colleges, Navy laboratories and warfare centers, and private industry. In addition to its Navy Science and Technology mission, ONR will provide important program management and administrative support to BMDO, ARPA, and CNO. Almost all the funds in this project will be fixed costs, such as salaries, building rent, communications, etc. The project will continue to provide support for the ONR headquarters, the ONR European Office (London), the ONR Asian Office (Tokyo), and field detachments.

Pages 134-5 of 134-10 Pages

Exhibit R-2

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605861N      DATE: February 1995  
 PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management      PROJECT NUMBER: R0135  
 PROJECT TITLE: ONR Science & Technology Management

### 4. (U) FY 1997 PLAN:

- (U) (\$52,136) The project will continue to provide for basic costs of the ONR headquarters and its field activities in support of the entire Navy Science and Technology program. Specifically, it will pay the salaries of scientific and engineering personnel who direct the execution of the Navy's basic research (Category 6.1), exploratory development (Category 6.2), and advanced technology development (Category 6.3) programs at the nation's universities/colleges, Navy laboratories and warfare centers, and private industry. In addition to its Navy Science and Technology mission, ONR will provide important program management and administrative support to BMDO, ARPA, and CNO. Almost all the funds in this project will be fixed costs, such as salaries, building rent, communications, etc. The project will continue to provide support for the ONR headquarters, the ONR European Office (London), the ONR Asian Office (Tokyo), and field detachments.

### B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	51,307	53,496	XXX	XXX
(U) FY 1995 Appropriated:	XXX	53,496	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	+3,478	+35	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	54,785	53,531	52,898	52,136

### (U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: Funding increase in FY 1994 (+3,478) is due to below threshold reprogramming required to fund the FY 1994 civilian locality pay raises and the SIP/VERA/RIF costs for the Naval Research Laboratory. Funding increase in FY 1995 is due to a congressional adjustment for federal workforce/civilian personnel pay raise and locality pay (+300), and undistributed cuts for travel (-76) and workyear utilization (-189).
- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605861N      DATE: February 1995  
PROGRAM ELEMENT TITLE: RDT&E,N Science and      PROJECT NUMBER: R0135  
Technology Management      PROJECT TITLE: ONR Science & Technology Management

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) Related RDT&E:

(U) Program Element 0605862N (RDT&E,N Instrumentation Modernization) Funds investment items for the activities covered in this program element.

D. (U) SCHEDULE PROFILE: Not applicable.

Pages 134-7 of 134-10 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605861N

PROGRAM ELEMENT TITLE: RDT&E,N Science and Technology Management

(U) COST: (Dollars in Thousands)

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X0832 Central Management Support	1,077	1,108	1,247	1,130	1,133	1,296	1,330	1,367	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project supports centrally managed inter-warfare center and corporate laboratory projects such as the Federation of Systems Analysis Directors (FOSAD), support for corporate video teleconferencing (VTC), joint planning, and other emerging issues which cut across the Navy Warfare Centers and Corporate Laboratory. This project is managed by the Navy Laboratory/Center Coordinating Group (NLCCG). Funds are used for the oversight and support of system evaluations and concept investigations, planning for cross warfare center/laboratory VTC, maintenance and expansion of corporate databases and historical archives, preparation and review of the Navy's annual Management Briefs as well as other resource documentation, and reports on corporate issues involving capital investment planning, technical program structure and business plans.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$148) Provided oversight and support of system evaluations and concept investigations.
- (U) (\$225) Planned and coordinated cross warfare center/laboratory VTC.
- (U) (\$150) Maintained and expanded corporate data bases and historical archives.
- (U) (\$ 95) Maintained corporate contracted vehicle for structural analyses.
- (U) (\$200) Prepared and/or reviewed recurring corporate reports (e.g., management briefs, statistical and biographical data document).
- (U) (\$259) Provided oversight, coordination and reports for corporate issues involving capital investment planning, technical program structure, policy guidance, uniform business practices and business plans (e.g., defense conversion, business divestitures, "Reliance" initiatives, preservation of core capabilities, and coordination with universities and industries).

Pages 134-8 of 134-10 Pages

Exhibit R-2

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605861N      DATE: February 1995  
PROGRAM ELEMENT TITLE: RDT&E,N Science and      PROJECT NUMBER: X0832  
Technology Management      PROJECT TITLE: Central Management Support

2. (U) FY 1995 PLAN:
  - (U) (\$200) Provide oversight and support of system evaluations and concept investigations.
  - (U) (\$200) Plan and coordinate cross warfare center/laboratory VTC.
  - (U) (\$150) Maintain and expand corporate data bases and historical archives.
  - (U) (\$100) Maintain corporate contract vehicle for structural analyses.
  - (U) (\$200) Prepare and/or review recurring corporate reports (e.g., management briefs, statistical and biographical data document).
  - (U) (\$258) Provide oversight, coordination and reports for corporate issues involving capital investment planning, technical program structure, policy guidance, uniform business practices and business plans (e.g., defense conversion, business divestitures, "Reliance" initiatives, preservation of core capabilities, and coordination with universities and industries).
3. (U) FY 1996 PLAN:
  - (U) (\$250) Provide oversight and support of system evaluations and concept investigations.
  - (U) (\$225) Plan and coordinate cross warfare center/laboratory VTC.
  - (U) (\$170) Maintain and expand corporate data bases and historical archives.
  - (U) (\$120) Maintain corporate contract vehicle for structural analyses.
  - (U) (\$200) Prepare and/or review recurring corporate reports (e.g., management briefs, statistical and biographical data document).
  - (U) (\$282) Provide oversight, coordination and reports for corporate issues involving capital investment planning, technical program structure, policy guidance, uniform business practices and business plans (e.g., defense conversion, business divestitures, "Reliance" initiatives, preservation of core capabilities, and coordination with universities and industries).
4. (U) FY 1997 PLAN:
  - (U) (\$125) Provide oversight and support of system evaluations and concept investigations.
  - (U) (\$225) Plan and coordinate cross warfare center/laboratory VTC.
  - (U) (\$170) Maintain and expand corporate data bases and historical archives.
  - (U) (\$120) Maintain corporate contract vehicle for structural analyses.

Pages 134-9 of 134-10 Pages

Exhibit R-2

# UNCLASSIFIED

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FY 1996 RDT&amp;E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605861N

PROGRAM ELEMENT TITLE: RDT&E, N Science and Technology Management

DATE: February 1995  
PROJECT NUMBER: X0832

PROJECT NUMBER:	4082
PROJECT TITLE:	Central Management Support

- (U) (\$200) Prepare and/or review recurring corporate reports (e.g., management briefs, statistical and biographical data document).
- (U) (\$290) Provide oversight, coordination and reports for corporate issues involving capital investment planning, technical program structure, policy guidance, uniform business practices and business plans (e.g., defense conversion, business divestitures, "Reliance" initiatives, preservation of core capabilities, and coordination with universities and industries).

B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:

(U) FY 1995 Appropriated:

(U) Adjustments from Appropriated/FY 1995 PRESBDUD:

(U) FY 1996/97 PRESUDG Submit:

(U)	CHANGE	SUMMARY	EXPLANATION:
(U)	CHANGE	SUMMARY	EXPLANATION:

(U) Funding: Funding decrease in FY 1995 is due to congressional undistributed cuts for university research (-6), consulting services (-4), and travel (-1).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) Related RDT&F: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

FY 1994	FY 1995	FY 1996	FY 1997
1,077	1,119	XXX	XXX
XXX	1,119	XXX	XXX
-0-	-11	XXX	XXX
1,077	1,108	1,247	1,130

Pages 134-10 of 134-10 pages

Exhibit R-2

UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605862N

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0105	NAVME Instrumentation and Material Support									
	3,946	4,178	3,530	3,174	3,229	3,731	3,842	3,958	CONT.	CONT.
R0137	ONR Science & Technology Instrumentation Modernization									
	665	1,574	1,091	1,072	1,110	1,304	1,343	1,383	CONT.	CONT.
S0353	NAVSEA Instrumentation and Material Support									
	830	780	0	0	0	0	0	0	0	23,953
W0566	NAVAIR Environmental Compliance									
	1,269	1,466	3,557	3,843	3,448	3,987	4,186	4,302	CONT.	CONT.
X0799	SPAWAR Material Support									
	10	0	0	0	0	0	0	0	0	983
S1957	Large Cavitation Channel									
	34,856	0	0	0	0	0	0	0	0	123,030
L2149	NPRDC Instrumentation and Material Support									
	402	593	0	0	0	0	0	0	0	1,726
TOTAL	41,978	8,591	8,278	8,089	7,787	9,022	9,371	9,643	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element funds investment costs at certain Navy research, development, test, and evaluation laboratories and facilities. These laboratories and other facilities are involved in diverse activities such as: medical research including research of new methods of combat casualty care; energy conservation; weapons testing; and a number of other programs. This program provides for research equipment in support of multiple program requirements at the Medical Research Laboratories, supports environmental protection and energy conservation projects at Naval Air Warfare Center facilities, and provides equipment for the Office of Naval Research (ONR) headquarters and field offices/detachments.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

Pages 135-1 of 135-9 Pages

Exhibit R-2

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605862N

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
M0105 NAVMED Instrumentation and Material Support	3,946	4,178	3,530	3,174	3,229	3,731	3,842	3,958	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This continuing modernization effort funds the procurement of new and replacement general purpose analytical and research support equipment, facility repairs, minor construction, alterations, equipment installation, and first destination transportation cost of newly purchased equipment for the Naval Medical Research and Development Command Headquarters, eight Medical Research laboratories, and three detachments.

### (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$2,918) Provided new technology analytical instrumentation, replacement of obsolete research equipment, and upgrade of equipment to enhance research capability.
  - (U) (\$1,028) Provided support for repairs to facilities, renovation of laboratory spaces, minor construction and rehabilitation to meet environmental compliance and pollution abatement/prevention standards.
2. (U) FY 1995 PLAN:
  - (U) (\$2,103) Provide technologically advanced research equipment and replacement of obsolete equipment for data acquisition, automated sampling, and real time statistical analysis of biomedical research data utilizing the database information systems integral with new equipment.
  - (U) (\$2,075) Provide repairs to facilities to meet safety and habitability requirements, minor construction/alteration, and renovation to preserve structural integrity to meet research mission.
3. (U) FY 1996 PLAN:
  - (U) (\$2,164) Continue to provide support for replacement of obsolete research equipment and to provide for the investment in technologically advanced equipment to support existing and emerging research missions.

Pages 135-2 of 135-9 Pages

Exhibit R-2

# UNCLASSIFIED



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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605862N

PROJECT NUMBER: M0105

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation  
Modernization

PROJECT TITLE: NAVMED Instrumentation  
and Material Support

- (U) (\$1,366) Continue to provide support to physical plant facility areas needing major repair, minor construction, rehabilitation to meet mission requirements as well as meeting environmental compliance and pollution abatement standards.

### 4. (U) FY 1997 PLAN:

- (U) (\$1,937) Continue to provide new cutting edge research equipment and timely replacement of obsolete equipment.
- (U) (\$1,237) Continue to provide major facility repair, minor construction, alteration to existing facilities to preserve structural integrity and meet safety and habitability requirements capable of supporting research missions.

### B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	3,905	4,190	XXX	XXX
(U) FY 1995 Appropriated:	XXX	4,190	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	+41	-12	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	3,946	4,178	3,530	3,174

### (U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: Funding increase in FY 1994 is due to end-of-year execution update (+41). Funding decrease in FY 1995 is due to congressional undistributed cuts for university research (-7) and travel (-5).
- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.

Pages 135-3 of 135-9 Pages

Exhibit R-2

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605862N      PROJECT NUMBER: M0105      DATE: February 1995  
PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization      PROJECT TITLE: NAVMED Instrumentation and Material Support

- C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.  
(U) Related RDT&E:  
(U) Program Element 0605861N, RDT&E,N Science and Technology Management and Navy medical research and development programs.
- D. (U) SCHEDULE PROFILE: Not applicable.

Pages 135-4 of 135-9 Pages

Exhibit R-2

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605862N

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

### PROJECT

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0137 ONR Science & Technology Instrumentation Modernization 665		1,574	1,091	1,072	1,110	1,304	1,343	1,383	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project purchases ADP and general support equipment for the Office of Naval Research (ONR) headquarters, foreign field offices, and nationwide field detachments.

### (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$665) Purchased ADP and general support equipment for ONR headquarters and field offices/detachments.
2. (U) FY 1995 PLAN:
  - (U) (\$1,574) Will purchase ADP and general support equipment for ONR headquarters and field offices/detachments.
3. (U) FY 1996 PLAN:
  - (U) (\$1,091) Will purchase ADP and general support equipment for ONR headquarters, foreign field offices, and nationwide field detachments.
4. (U) FY 1997 PLAN:
  - (U) (\$1,072) Will purchase ADP and general support equipment for ONR headquarters, foreign field offices, and nationwide field detachments.

Pages 135-5 of 135-9 Pages

Exhibit R-2

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605862N      PROJECT NUMBER: R0137      DATE: February 1995  
 PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization      PROJECT TITLE: ONR Science & Technology Instrumentation Modernization

### B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994	FY 1995	FY 1996	FY 1997
	612	1,694	XXX	XXX
(U) FY 1995 Appropriated:	XXX	1,694	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	+53	-120	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	665	1,574	1,091	1,072

### (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: Funding increase in FY 1994 is due to end-of-year execution update (+53). Funding decrease in FY 1995 is due to congressional undistributed cuts for university research (-88), travel (-2), and an assessment for Small Business Innovative Research (-30).

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) Related RDT&E:

(U) PE 0605861N, RDT&E,N Science and Technology Management, and Navy R&D science and technology programs.

D. (U) SCHEDULE PROFILE: Not applicable.

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605862N

PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation Modernization

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0566 NAVAIR Environmental Compliance	1,269	1,466	3,657	3,843	3,448	3,987	4,186	4,302	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This continuing project supports energy conservation and environmental compliance and pollution prevention related projects at Naval Air Warfare Center (NAWC) sites and the Naval Undersea Warfare Center Detachment AUPEC.

### (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

#### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$1,269) Continued to provide funds to the NAWC facilities for environmental protection and energy conservation projects. Projects included ongoing to complying with Federal, State, and local environmental requirements, including removal of asbestos from Navy heating, air conditioning, venting, refrigerant, and piping systems located throughout Navy owned and operated Major Range and Test Facilities Base (MRTFB) facilities. Continued repair and replacement of Polychlorinated Bi-Phenol (PCB) transformers.

#### 2. (U) FY 1995 PLAN:

- (U) (\$1,466) Continue asbestos removal and isolation efforts in various buildings throughout Navy owned and operated MRTFB facilities. Continue PCB repair and replacement efforts. Remove and replace aging and deteriorating underground fuel storage tanks. Undertake assessment of fuel and hazardous material storage and containment requirements.

#### 3. (U) FY 1996 PLAN:

- (U) (\$3,657) Continue replacing aging and deteriorating underground fuel storage tanks at NAWC MRTFB sites. Undertake various above ground fuel and other hazardous material storage and containment programs. Continue

Pages 135-7 of 135-9 Pages

Exhibit R-2

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605862N      DATE: February 1995  
 PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation      PROJECT NUMBER: W0566  
 Modernization      PROJECT TITLE: NAVAIR Environmental Compliance

PCB replacement projects. Undertake ozone depleting substance replacement and retrofit project and a nitrogen oxide reduction study. Prepare and implement various endangered species risk management plans.

### 4. (U) FY 1997 PLAN:

- (U) (\$3,843) Continue FY 1996 programs for environment and energy conservation at the NAWC MRFB sites. Included are several Superfund Amendments and Reauthorization Act Title III inventory projects, underground storage tank monitoring and remediation projects, and hazardous waste disposal. Additional projects will be initiated under the Clean Water Act, including studies of water quality, waste water and potable water maintenance and operation plan.

### B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	1,269	1,470	XXX	XXX
(U) FY 1995 Appropriated:	XXX	1,470	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	-0-	-4	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	1,269	1,466	3,657	3,843

### (U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: Funding decrease in FY 1995 is due to congressional undistributed cuts for university research (-2) and travel (-2).
- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605862N      DATE: February 1995  
PROGRAM ELEMENT TITLE: RDT&E,N Instrumentation      PROJECT NUMBER: W0566  
Modernization      PROJECT TITLE: NAVAIR Environmental Compliance

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) Related RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

Pages 135-9 of 135-9 Pages

Exhibit R-2

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N  
PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
S0354 RDT&E Ships Support										
16,667	14,754	12,760	12,984	13,267	15,214	15,384	15,368		CONT.	CONT.
W0568 RDT&E Aircraft Flight Hours										
10,362	11,307	10,680	9,967	10,250	11,490	11,781	12,092		CONT.	CONT.
W0569 RDT&E Aircraft Support										
47,695	54,463	39,792	43,259	44,953	51,379	52,002	52,251		CONT.	CONT.
TOTAL	74,724	80,524	63,232	66,210	68,470	78,083	79,167	79,711	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This continuing program provides support for ships and platforms required to accommodate Research, Development, Test and Evaluation (RDT&E) of new systems. The RDT&E ship and aircraft inventory is required to adequately test new and improved weapon systems, stay current with threats, and increase warfighting capability of the fleet. The program provides integrated logistics support for aircraft at selected field activities; provides depot-level rework of aircraft, engines, components for the Navy inventory of RDT&E aircraft; and provides support ships and aircraft bailed to contractors for Navy RDT&E projects. Costs covered under this element include aircrew training proficiency, fuel, supplies, equipment, modification, repair, Aviation Depot Level Repairables, Special Flight Test Instrumentation Pool equipment, overhaul of ships and aircraft, as well as Organizational, Intermediate, and Depot maintenance of ships and aircraft in the Navy RDT&E inventory.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

Page 136-1 of 136-12 Pages

Exhibit R-2

UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL
S0354 RDT&E Ships Support	16,667	14,754	12,760	12,984	13,267	15,214	15,384	15,368	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: S0354, RDT&E Ships Support. This project provides for operation and maintenance of platforms used as Sea Based Test Sites in support of the Navy Research, Development, Test and Evaluation (RDT&E) program. These are USS DOLPHIN (AGSS-555), the Floating Instrumentation Platform (FLIP) and the Oceanographic Research Buoy (ORB). EX-USS DECATUR (DDG-31) is being supported by this line as the Self-Defense Test Ship (SDTS). Testing aboard these platforms reduces the number of fleet units required to support RDT&E efforts. In the case of the SDTS, it provides the capability of testing self defense weapons systems to within their minimum ranges. A major cost of this project is regularly scheduled ship maintenance. The USS DOLPHIN (AGSS-555) is completing a regular overhaul during FY 94 and beginning a phased maintenance program. The remainder of the funds are used for purchase of supplies and equipment, fuel and petroleum products, repairs and supporting modifications. Most costs are fixed and are associated with simply having these platforms in the inventory. A lesser portion varies with the tempo and type of ship operations and provides for systems improvements and replacement planning. The nature of the operation is determined by the overall Navy/DOD R&D testing program.

(U) USS DOLPHIN will support live fire lethality testing and system operability testing of the MK 50, MK 46 and MK 37 Torpedoes. The Montreal Protocol 1989 and the Clean Air Act of 1990 require cessation of chlorofluorocarbons/hydrochlorofluorocarbons venting in 1992 and cessation of production in 1997. USS DOLPHIN, with its unique Thermoelectric Air Conditioning (TEAC) plant, is actively involved in NAVSEA efforts to comply with these laws.

(U) The current and projected Anti-Ship Cruise Missile (ASCM) threat requires self-defense weapons systems capable of adequately countering the ASCM's into the year 2000. The National Defense Authorization Act for FY 87, section 910, "Testing of Certain Weapons System and Munitions," requires live-fire lethality testing of manned weapons systems. Operational and safety constraints limit realistic live-fire lethality testing with U.S. Navy ships and thus drives the requirement for having an afloat, unmanned, remotely controlled SDTS. Ex-USS DECATUR has been converted to the SDTS. The SDTS plans call for testing Close-In-Weapons system (CIWS), North Atlantic Treaty Organization (NATO) Sea Sparrow Missile System (NSSMS), Ship Self-Defense System (SSDS), Rolling Airframe Missile (RAM), SLQ-32(V3), and future short range Anti-Air Warfare systems against realistic threat presentation in an at-sea environment.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: S0354

PROJECT TITLE: RDT&E Ships Support

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$14,261) USS DOLPHIN completed its regular overhaul at NAVSHIPYD, Mare Island in fourth quarter. USS DOLPHIN entered a post overhaul availability at its home port in San Diego, CA to install special scientific sensors and equipment and commenced normal operations with MK 50 Torpedo Program testing. Wide Area Undersea Surveillance Program and SEAWOLF/Attack Submarine material evaluations were supported. Testing of AN/BQS-15 EC17 sonar for SSN 688 installation was supported. Testing started for lightweight, broad-band variable depth sonar. Planning began for testing an Advanced Sea/Land Team Delivery System. USS DOLPHIN continued to support near ocean bottom operations and other RDT&E programs, modeling sonar propagation, testing Unmanned Underwater Vehicles (UUVs), testing sensors, TEAC systems, and communications systems.
- (U) (\$504) FLIP/ORB continued to conduct research in underwater acoustic and non-acoustic phenomena to support Anti-Submarine Warfare (ASW) surveillance and weapons needs and ocean technology development. Continued participation in Accelerated Research Initiative marine boundary layer experiment. Supported shallow water vertical array acoustics experiment. The previously planned FLIP overhaul was delayed to FY95 and reduced in scope due to budget constraints. Drydock inspection was conducted on FLIP and repairs as needed.
- (U) (\$1,902) Ex-USS DECATUR/SDTS completed outfitting and checkout of installed combat systems and associated remote controls. Installation of NSSM, RAM Launcher and CIWS mounts, SLQ-32(V)3, Target Acquisition System fire prevention system, ship wide alarm system, and conversion/certification of missile magazine was accomplished. Sea trials were conducted to test ship and combat systems at Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV) Pt Mugu, CA following conversion. Final approval of all applicable operational safety and maintenance documentation was given by NAVAIRWARCENWPNDIV and the SDTS was certified for and conducted live fire operations to support RAM, CIWS, NSSM, and other self defense systems as required. Naval Surface Warfare Center Division (NAVSURFWARCENDIV), Port Hueneme, CA was responsible for the operation and maintenance of the SDTS.

Page 136-3 of 136-12 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: S0354

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

PROJECT TITLE: RDT&E Ships Support

2. (U) FY 1995 PLAN:

- (U) (\$9,954) USS DOLPHIN continues to support MK 50 Program Testing and SEAWOLF/Attack Submarine material evaluations. Sixty (60) days of at-sea testing and environmental surveys for National Oceanic and Atmospheric Administration's (NOAA) National Undersea's Research Program are scheduled. USS DOLPHIN continues to support near ocean bottom operations and other RDT&E programs, modeling sonar propagation, testing UUVs, testing sensors, TEAC systems, and communications systems. Continue support for AN/BQS-15 EC 17 testing for SSN 688 Installation, support several LASER imaging programs and the Advanced Sea/Air/Land (SEAL) Delivery System (ASDS). USS DOLPHIN conducts periodic phased maintenance to maintain certification and procures material to support continued operations. Commence performance of depot-level maintenance on a continuous basis vice regular periodic overhauls. This phased maintenance approach allows level funding of this project and avoids funding spikes of \$20M to \$30M in the fiscal year of a periodic overhaul.

- (U) (\$2,901) FLIP/ORB continues to conduct research in underwater acoustic and non-acoustic phenomena to support ASW surveillance and weapons (OT3A) needs and ocean technology development. Reduced scope overhaul package scheduled for FLIP. Structural repairs and safety and environmental modifications to meet the requirements of the Code of Federal Regulations will be accomplished. ORB will be disposed of this year.

- (U) (\$1,899) Ex-USS DECATUR/SDTS conducts live fire operations at NAVAIRWARCENWPNDIV, Pt Mugu, CA as required to support RAM, CIWS, NSSMS, and other self defense systems as may be required. NAVSURFWARCENDIV, Port Hueneme, CA plans, schedules, and performs combat systems operations and maintenance on board the SDTS. The SPQ-9(B), RAM, CIWS Development and operational testing are conducted on SDTS.

3. (U) FY 1996 PLAN:

- (U) (\$9,460) USS DOLPHIN continues to support MK 50 Torpedo Program testing and SEAWOLF/New Nuclear Submarine material evaluations. At-sea testing and environmental surveys are planned for NOAA's National Undersea Research Program. Continued support for ocean bottom operations and other RDT&E programs, including the Lightweight Broad Band Variable Depth Sonar, sea floor mapping, testing UUVs, testing sensors, TEAC systems and communications systems is planned. ASDS Sub-system testing begins. AN/BOS-15 EC-17 sonar testing concludes. USS DOLPHIN conducts periodic phased maintenance to maintain certification and procures material to support continued operations. A Restricted Availability (RAV1) is scheduled as part of the phased maintenance program with fifteen percent (15%) of planned maintenance deferred to the out years.

Page 136-4 of 136-12 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N  
PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

PROJECT NUMBER: S0354  
PROJECT TITLE: RDT&E Ships Support

- (U) (\$800) FLIP continues to conduct research in undersea acoustic research relevant to anti-submarine warfare with emphasis on the shallow water environment. Additionally, the FLIP will be employed in support of geophysics, meteorology, physical oceanography and non-acoustic anti-submarine warfare. Drydock inspection may be scheduled dependent on the number of at-sea hours accumulated.
- (U) (\$2,500) Ex-DECATUR/SDTS conducts live fire operations at NAVAIRWARCENWPNDIV, Pt Mugu, CA. Primary testing planned is the CIWS, but testing of other self defense systems including the RAM and NSSMS may also be scheduled. NAVSURFWARCENDIV, Port Hueneme, CA plans, schedules, and performs combat systems operations and maintenance on board the SDTS. The NSSMS (RIM 7R) Follow on Test and Evaluation (FOT&E) is conducted on the SDTS.
- 4. (U) FY 1997 PLAN:
  - (U) (\$9,644) USS DOLPHIN continues to provide New SSN material program testing, Defense Mapping Agency mapping and sea floor bottom mapping for ARPA. In addition, Lightweight Broadband Variable Depth Sonar testing will continue as well as testing of advance Sea/Air/Land (SEAL) Delivery System (ASDS). USS DOLPHIN will continue to support near ocean bottom operations and other RDT&E program, modeling sonar propagation, UUVs, testing sensors and communication systems. USS Dolphin conducts periodic phased maintenance to maintain certification and procures material to support continued operations. Continue phased maintenance. Defer 15% of planned maintenance to out years.
  - (U) (\$877) FLIP continues to conduct research in underwater acoustic and non-acoustic phenomena to support ASW surveillance and weapons needs and ocean technology development. Drydock inspection may be scheduled depending on the number of at-sea hours accumulated.
  - (U) (\$2,463) Ex-DECATUR/SDTS conducts live fire operations at NAVAIRWARCENWPNDIV, Pt Mugu, CA. Live Fire testing planned includes the CIWS, the RAM, the Evolved Sea Sparrow Missile ESSM, and the SSDS. In addition, non-live fire testing is planned for the Electro Thermal Chemical (ETC) Weapon. NAVSURFWARCENDIV, Port Hueneme, CA plans, schedules, and performs combat systems operations and maintenance on board SDTS.

Page 136-5 of 136-12 Pages

Exhibit R-2

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: S0354

PROJECT TITLE: RDT&E,N Ship and Aircraft Support

### B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:	FY 1994	FY 1995	FY 1996	FY 1997
	16,667	15,306	xxx	xxx
(U) FY 1995 Appropriated:	xxx	15,306	xxx	xxx
(U) Adjustments from Appropriated/ FY 1995 PRESBUDG:	xxx	-552	xxx	xxx
(U) FY 1996/97 PRESBUDG Submit:	16,667	14,754	12,760	12,984

### B. (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1995 Budget reductions were University Research and SBIR reductions.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

### C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

#### (U) RELATED RDT&E:

(U) PE 0604755N: NATO Sea Sparrow and CIWS (Phalanx)  
 (U) PE 0602314N: Undersea Surveillance and Weapons Technology (FLIP) (USS DOLPHIN)  
 (U) PE 0602435N: Oceanographic and Atmospheric Technology (RL3B, OT3B)  
 (U) PE 0602111N: Surface/Aerospace Surveillance and Weapons Technology (ORIA)  
 (U) PE 0603226E: Unmanned Underwater Vehicles (USS DOLPHIN)  
 (U) PE 0604610N: Lightweight Torpedo Development (USS DOLPHIN)

### D. (U) SCHEDULE PROFILE: Not applicable.

Page 136-6 of 136-12 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0568 RDT&E Aircraft Flight Hours	10,362	11,307	10,680	9,967	10,250	11,490	11,781	12,092	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: W0568, RDT&E Aircraft Flight Hours. This non-acquisition project supports non-MRTFB flight hour costs, including organizational and intermediate level maintenance, as well as associated consumables, including petroleum, oil, and lubricants (POL). These flight hours are used for aircrew training, the accomplishment of pilot proficiency requirements, transition to new aircraft types, and support of Research and Development programs at five Naval Air Systems Command/Office of Naval Research (NAVAIR/ONR) activities. Annual flight simulator training is also supported.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$10,362) Met non-MRTFB proficiency, training, and project flight hour requirements in FY 1994. Provided maintenance, supply, and POL in support of Research, Development, Test and Evaluation (RDT&E) aircraft operations. Transition and reduction of aircraft and aircrew in response to downsizing of RDT&E aircraft inventory occurred. Aircraft and aircrew transition of work from Naval Weapons Evaluation Facility Albuquerque, NM, to Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV) China Lake, CA, was completed. Integration of aircraft and pilots/aircrew from Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV) Warminster, PA, to NAVAIRWARCENACDIV Patuxent River, MD, commenced.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: W0568

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Flight Hours

## 2. (U) FY 1995 PLAN:

- (U) (\$11,307) Continue to meet non-MRTFB proficiency, training, and project flight hour requirements. Continue to provide organizational and intermediate-level maintenance, supply, and POL in support of RDT&E aircraft operations. Transition and reduction of aircraft and aircrew in response to downsizing of RDT&E aircraft inventory will continue to occur, with resultant savings expected in FY96. Continue to support the annual flight simulator training program. Integration of aircraft and aircrew from Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV) Warminster, PA, to NAVAIRWARCENACDIV Patuxent River, MD, will be completed.

## 3. (U) FY 1996 PLAN:

- (U) (\$10,680) Continue to meet non-MRTFB proficiency, training, and project flight hour requirements. Continue to provide organizational and intermediate-level maintenance, supply, and POL in support of RDT&E aircraft operations. Transition and reduction of aircraft and aircrew in response to downsizing of RDT&E aircraft inventory and reduction in project workload will continue to occur. Continue to support the annual flight simulator training program.

## 4. (U) FY 1997 PLAN:

- (U) (\$ 9,967) Continue to meet non-MRTFB proficiency, training, and project flight hour requirements. Continue to provide organizational and intermediate-level maintenance, supply, and POL in support of RDT&E aircraft operations. Continue to support the annual flight simulator training program.

Page 136-8 of 137-12 Pages

Exhibit R-2

# UNCLASSIFIED

145



# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: W0568

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Flight Hours

### B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	10,362	11,361	xxx	xxx
(U) FY 1995 Appropriated:	xxx	11,361	xxx	xxx
(U) Adjustments from Appropriated/ FY 1995 PRESUDG:	xxx	-54	xxx	xxx
(U) FY 1996/97 PRESUDG Submit:	10,362	11,307	10,680	9,967

(U) CHANGE SUMMARY EXPLANATION: The FY95 decrease reflect a proportional share of Congressional undistributed funding adjustments.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

# UNCLASSIFIED

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support

PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0569 RDT&E Aircraft Support	47,695	54,463	39,792	43,259	44,953	51,379	52,002	52,251	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: RDT&E Aircraft Support. This continuing project funds costs associated with Navy Research, Development, Test and Evaluation (RDT&E) fixed and rotary wing aircraft which accommodate test and evaluation of aircraft/weapon systems. Included in these costs are Aviation Depot-level Repairables (AVDLRs), which are spare and replacement aircraft parts and components. This project funds aircraft Standard Depot Level Maintenance (SDLM), in-service repairs, modifications, emergency repairs, and engine repair, as well as aircraft material condition and field inspections. Additionally, it funds Individual Material Readiness List (IMRL) tools and support equipment, modification of in-service aircraft, and other systems for application to and compatibility with RDT&E requirements. Special Flight Test Instrumentation Pool (SFTIP) equipment, shared by programs to reduce or eliminate procurement lead times and save money is also supported. The project is also funding modifications and upgrades of RDT&E P3 engines, landing gear, and avionics. Operation and implementation of numerous maintenance and material management programs are also supported.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$47,695) The following programs were supported: SDLM, AVDLR, IMRL, engine, and in-service repair support of aircraft in the RDT&E inventory. Downsizing of RDT&E aircraft inventory continued in response to a reduction in project workload. Operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities continued. P-3 engine upgrades were completed. Aircraft and aircrew transition of work from Naval Weapons Evaluation Facility Albuquerque, NM, to Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPNDIV) China Lake, CA, was completed. Integration of aircraft and pilots/aircrew from Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV) Warminster, PA, to NAVAIRWARCENACDIV Patuxent River, MD, commenced. P-3 avionics upgrades to communications, navigation, and weather radar commenced. To upgrade the aging inventory of RDT&E F/A-18 aircraft, in-service depot-level repair of F/A-18 aircraft for conversion from fleet to RDT&E use commenced. Deferred a portion of AVDLRs and required engine repairs to FY95.

Page 136-10 of 136-12 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N

PROJECT NUMBER: W0569

PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Support

## 2. (U) FY 1995 PLAN:

- (U) (\$54,463) The following programs are being supported: SDLM, AVDLR, IMRL, engine, and in-service repair support and modifications of aircraft in the RDT&E inventory. Plan to accomplish deferred portion of FY94 AVDLRs and engine repairs. Increased funding in this FY partially offsets increases in SDLM/AVDLR costs. Downsizing of RDT&E aircraft inventory will continue in response to a reduction in project workload. Operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities will continue. To upgrade the aging inventory of RDT&E F/A-18 aircraft, in-service depot-level repair of F/A-18 aircraft for conversion from fleet to RDT&E use will be completed. P-3 avionics upgrades to communications, navigation, and weather radar will be completed. Integration of aircraft and aircrew from Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV) Warminster, PA, to NAVAIRWARCENACDIV Patuxent River, MD, will be completed.

## 3. (U) FY 1996 PLAN:

- (U) (\$39,792) The following programs will be supported: SDLM, AVDLR, IMRL, engine, and in-service repair support and modifications of aircraft in the RDT&E inventory. Portion of required AVDLRs and SLDMs will be deferred to FY97. Further downsizing of RDT&E aircraft inventory will continue in response to a reduction in project workload. Operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities will continue.

## 4. (U) FY 1997 PLAN:

- (U) (\$43,259) The following programs will be supported: SDLM, AVDLR, IMRL, engine, and in-service repair support and modifications of aircraft in the RDT&E inventory. Plan to accomplish deferred portion of FY96 required AVDLRs and SLDMs. Operation and implementation of maintenance and material management programs at Naval Air Warfare Center activities will continue.

Page 136-11 of 136-12 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

DATE: February 1995

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605863N PROJECT NUMBER: W0569  
 PROGRAM ELEMENT TITLE: RDT&E,N Ship and Aircraft Support PROJECT TITLE: RDT&E Aircraft Support

## B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	47,695	54,695	xxx	xxx
(U) FY 1995 Appropriated:	xxx	54,695	xxx	xxx
(U) Adjustments from Appropriated/ FY 1995 PRESBUDG:	xxx	-232	xxx	xxx
(U) FY 1996/97 PRESBUDG Submit:	47,695	54,463	39,792	43,259

(U) CHANGE SUMMARY EXPLANATION: The FY95 decrease reflect a proportional share of Congressional undistributed funding adjustments.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) Related RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

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FY 1996 RDT&E, II BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N

PROGRAM ELEMENT TITLE: Test and Evaluation Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0541 Atlantic Undersea Test and Evaluation Center (AUTC)	46,272	49,115	43,024	42,903	43,083	49,493	49,437	48,922	CONT.	CONT.
W0653 Naval Air Warfare Center Weapons Division	141,167	140,771	123,051	119,426	122,178	142,577	143,372	143,142	CONT.	CONT.
W0654 Naval Air Warfare Center Aircraft Division	88,376	92,571	79,966	74,576	75,285	87,339	87,807	87,361	CONT.	CONT.
TOTAL	275,815	282,457	246,041	236,905	240,546	279,409	280,616	279,425	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides institutional maintenance and operations support for: the Naval Undersea Warfare Center Detachment Atlantic Undersea Test and Evaluation Center (NAVUNSEAWARCEN DET AUTC), Andros Island, Bahamas; the Naval Air Warfare Center Weapons Division (NAVAIRWARCENWPDIV), Point Mugu and China Lake, CA; the Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV), Patuxent River, MD and Trenton, NJ. The Test and Evaluation (T&E) activities make up the Navy portion of the Department of Defense's Major Range and Test Facility Base (MRTFB). These activities are chartered to develop, refine and maintain the capability and capacity to perform the full spectrum of development and acquisition of technologically advanced weapons systems. Core T&E capabilities and capacity are paramount in obtaining weapons system performance documentation for acquisition program milestone decisions in support of providing operational forces with effective weapon systems that work. This project funds facility costs not chargeable to the user.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

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FY 1996 RUT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864H

PROGRAM ELEMENT TITLE: Test and Evaluation Support

(U) COST (Dollars in Thousands)

PROJECT

NUMBER &

TITLE

	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0541 Atlantic Undersea Test and Evaluation Support	46,272	49,115	43,024	42,903	43,083	49,493	49,437	48,922	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: W0541, Atlantic Undersea Test and Evaluation Center (AUTE) provides a deep water Test and Evaluation (T&E) facility for collecting selected underwater, surface and air tracking data on test participants. The Naval Under Sea Warfare Center Detachment AUTE (NAVUNSEAWARCEN DET AUTE), Andros Island, Bahamas, includes the Weapons Range, Fleet Operational Readiness Accuracy Check Site, Weapons Acoustic Measurement Capability and an Ocean Haul Down Facility for large buoyant bodies. The Weapons Range provides three dimensional (undersea, surface, air) precision tracking capability in support of Anti-Submarine Warfare Development T&E and Operational T&E. Major training operations including Fleet readiness exercises and tactical development trails are also conducted on the Weapons Range. The Fleet Operational Readiness Accuracy Check Site provides the capability to accurately calibrate and align electronic optical, acoustic, and navigational systems installed on submarine, surface ships and helicopters. The NAVUNSEAWARCEN DET AUTE at West Im Beach, Florida, provides technical expertise in tracking systems, liaison and test planning with range users, test scheduling, and logistic support.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$27,444) Continued to operate and maintain the physical plant; maintained technical test support instrumentation, marine craft, and spare parts inventory; performed repair efforts to reduce the Backlog of Maintenance and Repair (PMAP) items; and performed contract administration support.
- (U) (\$11,205) Continued rental payments to Bahamian government and lease payments for facilities at West Palm Beach.

Page 137-2 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED

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FY 1996 FIVE, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864H

PROJECT NUMBER: W0541

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Atlantic Undersea Test and Evaluation Center

- (U) (\$7,623) Continued civilian pay, travel, utility, petroleum, oil and lubricants (POL), supply and general and administrative efforts required to maintain and operate the facility.

## 2. (U) FY 1995 PLAN:

- (U) (\$30,109) Continue to operate and maintain the physical plant; maintain technical test support instrumentation, marine craft, and spares inventory. Perform repair efforts to reduce the BMAR items. Perform contract administration support.
- (U) (\$11,273) Continue rental payments to Bahamian government and lease payments for facilities at West Palm Beach.
- (U) (\$7,733) Continue civilian pay, travel, utility, POL, supply and general and administrative efforts required to maintain and operate the facility.

## 3. (U) FY 1996 PLAN:

- (U) (\$23,942) Maintain core Major Range Test and Facility Base (MRTFB) capabilities to meet critical test workload. Continue to operate and maintain critical elements of the physical plant; operate essential technical test support instrumentation, marine craft, and spares inventory. Support priority maintenance and repair efforts. Perform contract administration support.
- (U) (\$11,315) Continue rental payments to Bahamian government and lease payments for facilities at West Palm Beach.
- (U) (\$7,767) Continue civilian pay, travel, utility, POL, supply and general and administrative efforts required to maintain and operate the facility.

## 4. (U) FY 1997 PLAN:

- (U) (\$23,701) Maintain core MRTFB capabilities to meet critical test workload. Continue to operate and maintain essential elements of the physical plant; operate essential technical test support instrumentation, marine craft, and spares inventory. Continue priority maintenance and repair efforts. Perform contract administration support. Exhibit R-2

Page 137-3 of 137-16 Pages

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## FY 1996 FISCAL BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0541

PROGRAM ELEMENT TITLE: Test and Evaluation Support PROJECT TITLE: Atlantic Undersea Test and Evaluation Center

• (U) (\$11,360) Continue rental payments to Bahamian government and lease payments for facilities at West Palm Beach.

• (U) (\$7,842) Continue civilian pay, travel, utility, POL, supply and general and administrative efforts required to maintain and operate the facility.

### B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	46,272	51,126	XXX	XXX
(U) FY 1995 Appropriated:	XXX	49,426	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESPUNG	XXX	-311	XXX	XXX
(U) FY 1996/97 PRESPUNG, Submit:	46,272	49,115	43,024	42,903

### (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The adjustment from FY 1995 PRESPUNG reflects a proportional share of Congressional undistributed funding reductions.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

### C. (U) OTHER PROGRAM FUNDING SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	TO	TOTAL
ACTUAL ESTIMATE										
(U) MILCOM, Project 305	0	0	0	0	0	4,000	0	0	COMPLETE	PROGRAM
									CONT.	CONT.

Page 137-4 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED



# UNCLASSIFIED

FY 1996 RDT&E, H BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864H

PROJECT NUMBER: W0541

PROJECT TITLE: Test and Evaluation Support

PROJECT TITLE: Atlantic Undersea Test and

(U) RELATED RDT&E:

(U) PE 0604759H, Major T&E Investment

(U) PE 0605862H, RDT&E Instrumentation Modernization

D. (U) SCHEDULE PROFILE: Not applicable.

Page 137-5 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605864N  
PROGRAM ELEMENT TITLE: Test and Evaluation Support

(U) COST (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0653 Naval Air Warfare Center Weapons Division	141,167	140,771	133,051	119,426	122,178	142,577	143,372	143,142	CONT.	CONT.

A. (U) BUDGET DESCRIPTION AND BUDGET ITEM JUSTIFICATION: W0653, Naval Air Warfare Center Weapons Division (NAVAIRWARCEHWPNDIV). Project W0653 provides maintenance and operational support of the NAVAIRWARCEHWPNDIV Pacific Ranges consisting of the China Lake Land Ranges and the Point Mugu and San Nicolas Island (SNI) Sea Range. The Pacific Ranges use China Lake's 1.1 million acres of land area and 17,000 square miles of military restricted (R-2508) airspace together with Point Mugu's 125,000 square miles of instrumented sea range and 36,000 square miles of controlled overlaying airspace; a neighboring deep draft port facility at Port Hueneme, and the offshore airfield and test instrumentation at SNI to perform its Test and Evaluation mission. The Point Mugu and SNI sea range has unique sea, mountain, instrumented offshore islands, and the instrumentation needed to support large complex operations. The China Lake air ranges contain unique terrain features, and are instrumented for both low level and high altitude missile and weapon system testing. The Electronic Combat Range (ECR) at China Lake provides outdoor free space development and operational testing of airborne electronic warfare (EW) systems and tactics against shipboard and land site air defense systems over a land range of 700 square miles. These ranges perform metric radar, multilateration and optical tracking of test objects; command, control, and destruct for range safety purposes; communications; frequency interference control and analysis; collection processing and display of telemetered data; real-time data processing and display; the operation of full scale aerial target launch capability. Other test capabilities include static Radar Cross Section (RCS) measurement facility, propulsion/warhead/environmental, rocket motor, and other missile component test facilities, parachute/weapon recovery system test facilities, gun ranges, and weapon system survivability. This project also funds the maintenance support of the R-2508 Air Space Control System, annual leases for offshore islands and remote location instrumentation sites, Host Tenant Agreement costs. This project funds facility costs not chargeable to the user.

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FY 1996 PBT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6.

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0653

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center  
Weapons Division

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (61,351) Continued indirect civilian pay and contractor costs required to manage, operate, and maintain Pacific Ranges' Sea, Air, Ground, Electronic Combat, Junction Ranch RCS ranges, Propulsion, Warhead, and Environmental test facilities, parachute system testing, and operational target vehicle and launch functions. Supported Naval Air Weapons Station Major Range Test Facility Base (MRTFB) functions including aircraft maintenance, weapons handling and storage, and air operations. Supported new threat systems at ECR.
- (U) (\$1,980) Continued support for sustaining equipment maintenance, materials, supplies, technical equipment and spare parts for range and target instrumentation and equipment systems. Supported newly acquired threat systems at ECR with required critical spare parts and other operational support to ensure instrumentation availability.
- (U) (\$2,984) Continued travel, transportation, printing, communications, annual leases for offshore island and remote location instrumentation, sites, Host Tenant Agreement costs, and mandatory training necessary to manage and sustain HIFIP operations.
- (U) (\$1,100) Continued funding HIFIP Real Property Maintenance Activities (RPMA) including emergency call services, extensive road maintenance, periodic system maintenance, and major facility projects to reduce backlog of maintenance and repair and meet new mission and customer requirements. Funded public works transportation and engineering support and hazardous waste control costs for the MRTFB, and completed the procurement of uninterrupted power system (UPS) for critical range operations and safety systems.
- (U) (\$4,552) Continued support for maintaining R-2508 Air Space Control System and DC-130 target air launch capability maintenance contract and overhead costs. Updated DC-130 drone launch capabilities to all current Navy and Air Force standards, and qualified three new AEGIS destroyers using DC-130 services; expanded cargo capabilities that were essential in completing electronic upgrades to SNI instrumentation, resulting in cost savings to HIFIP. Completed communications/navigation upgrades to DC-130 to increase worldwide operational capability.
- (U) (\$52,884) Continued annual utility costs, facility service contracts, worker's compensation costs for MRTFB employees, and contribution to Command's General and Administrative (G&A) expenses.

Page 137-7 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 POT&E, II BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864H

PROJECT NUMBER: W0653

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center  
Weapons Division

- (U) (\$5,190) Continued flight hour costs to maintain pilot proficiency in aircraft used to support the MRTFB mission.

## 2. (U) FY 1995 PLAN:

- (U) (\$61,200) Continue indirect civilian pay and contractor costs required to manage, operate, and maintain Pacific Ranges' Sea, Air, Ground, Electronic Combat, Junction Punch RCS ranges, Propulsion, Warhead, and Environmental test facilities, parachute system testing, and operational target vehicle and launch functions. Support Naval Weapons Station MPTFB functions including aircraft maintenance, weapons handling and storage, and all operations. Support new threat systems at ECR.
- (U) (\$10,448) Continue support for sustainer equipment maintenance, materials, supplies, technical equipment and spare parts for range and target instrumentation and equipment systems. Newly acquired threat systems at ECR require critical spare parts and other operational support to ensure instrumentation availability. Replacement of depleted instrumentation spares inventory, examples ECR threat simulators, radar, airborne TM systems and magnetron tubes.
- (U) (\$3,250) Continue travel, transportation, printing, communications, annual leases for offshore island and remote location instrumentation sites, Host Tenant Agreement costs, and mandatory training necessary to manage and sustain MPTFB operations.
- (U) (\$7,780) Continue funding MPTFB RPMA including emergency call services, extensive road maintenance, periodic system maintenance, and major facility projects to reduce backlog of maintenance and repair to meet new mission and customer requirements. Fund public works transportation and engineering support and hazardous waste control costs for the MPTFB. Invest in facilities to prevent future operational failures due to severe budget constraints.
- (U) (\$4,765) Continue support for maintaining R-2508 Air Space Control System and DC-130 target air launch capability maintenance contract and overhead costs.
- (U) (\$48,110) Continue annual utility costs, facility service contracts, worker's compensation costs for MRTFB employees, and contribution to Command's G&A expenses.

Page 137-8 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

## FY 1996 RDT&E, II BUDGET ITEM JUSTIFICATION

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0653

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center  
Weapons Division

- (U) (\$5,318) Continued flight hour costs to maintain pilot proficiency in aircraft used to support the MRTFB mission.
- 3. (U) FY 1996 PLAN:
  - (U) (\$56,880) Operate core MRTFB capabilities to meet critical test workload. Support essential components of indirect civilian salary and contractor costs required to manage, operate, and maintain Pacific Ranges, Sea, Air, Ground, Electronic Combat, Junction Ranch PCS ranges, Propulsion, Warhead, and Environmental test facilities, Parachute system testing, and operational target vehicle and launch functions. Support critical elements of Naval Weapons Station MRTFB functions including aircraft maintenance, weapons handling and storage, and air operations.
  - (U) (\$6,197) Support priority equipment maintenance, materials, supplies, technical equipment and spare parts for core range and target instrumentation and equipment systems.
  - (U) (\$3,695) Support essential transportation, printing, communications, annual leases for offshore island and remote location instrumentation sites, Host Tenant Agreement costs, and critical training necessary to manage and sustain MRTFB operations.
  - (U) (\$4,800) Support MRTFB PMAA funding for mission critical emergency call services, road maintenance, system maintenance to meet customer requirements. Continue essential public works transportation and engineering support and hazardous waste control.
  - (U) (\$4,765) Support for essential R-2508 Air Space Control System and DC-130 target air launch capabilities.
  - (U) (\$41,079) Continue annual utility costs, facility service contracts, worker's compensation costs for MRTFB employees, and contribution to Command's G&A expenses.
  - (U) (\$4,666) Provide flight hour costs to maintain basic pilot proficiency in aircraft used to support the MRTFB mission.

Page 137-9 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6.

PROGRAM ELEMENT: 0605864N

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT NUMBER: W0653

PROJECT TITLE: Naval Air Weapons Center  
Weapons Division

## 4. (U) FY 1997 PLAN:

- (U) (\$56,122) Operate core MRTFB capabilities to meet acquisition program and fleet test workload. Continue to support essential elements of indirect civilian salary and contractor costs required to manage, operate, and maintain Pacific Ranges' Sea, Air, Ground, Electronic Combat, Junction Ranch RCS ranges, Propulsion, Warhead, and Environmental test facilities, parachute system testing, and operational target vehicle and launch functions. Support critical components of Naval Weapons Station MRTFB functions including aircraft maintenance, weapons handling and storage, and air operations.
- (U) (\$6,008) Support primary equipment maintenance, materials, supplies, technical equipment and spare parts for range and target instrumentation and equipment systems.
- (U) (\$1,131) Continue essential transportation, printing, communications, annual leases for offshore island and remote location instrumentation sites, Host Tenant Agreement costs, and critical training necessary to manage and sustain MRTFB operations.
- (U) (\$4,200) Continue MRTFB FEMA funding for mission critical emergency call services, road maintenance, system maintenance to meet customer requirements. Continue essential public works transportation and engineering support and hazardous waste control costs for the MRTFB.
- (U) (\$4,765) Continue support for maintaining essential R-2508 Air Space Control System and DC-130 target air launch capabilities.
- (U) (\$41,095) Continue annual utility costs, facility service contracts, worker's compensation costs for MRTFB employees, and contribution to command's G&A expenses.
- (U) (\$4,505) Provide flight hour costs to maintain basic pilot proficiency in aircraft used to support the MRTFB mission.

Page 137-10 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E, H BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864H

PROJECT NUMBER: W0653

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center  
Weapons Division

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:

(U) FY 1995 Appropriated:

(U) Adjustments from Appropriated/FY 1995 PRESBUDG

(U) FY 1996/97 PRESBUDG Submit:

	FY 1994	FY 1995	FY 1996	FY 1997
	141,167	145,783	XXX	XXX
	XXX	141,283	XXX	XXX
	XXX	-512	XXX	XXX
	141,167	140,771	123,051	119,426

## U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The adjustment from FY 1995 PRESBUDG reflects a proportional share of Congressional funding reductions.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

## C. (U) OTHER PROGRAM FUNDING SUMMARY:

	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
(U) MILCON, Projects	233,286	249,356	428,438	469,484	997,014	031,048	061,085	090,183	773	
	0	6,000	0	0	28,470	21,940	3,774	30,000	CONT.	CONT.

## (U) RELATED RDT&E:

(U) FE 0604759H, Major T&E Investment

(U) FE 0605862H, RDT&E Instrumentation Modernization

D. (U) SCHEDULE PROFILE: Not applicable.

Page 137-11 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

DATE: February 1995

FY 1996 PD4E, II BUDGET ITEM JUSTIFICATION SHEET

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 06058640

PROGRAM ELEMENT TITLE: Test and Evaluation Support

(U) COST (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
W0654 Naval Air Warfare Center Aircraft Division	87,376	92,571	79,966	74,576	75,285	87,339	87,807	87,361	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: W0654, Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV) provides funds for test and evaluation and fleet support for air platforms. Product areas include aircraft systems flight test and engineering, Flight Test and Engineering Group (FTEG) Patuxent River, performs development, and test and evaluation of manned and unmanned air vehicle systems, including mission systems, equipment, subsystems, components, and support systems. NAVAIRWARCENACDIV has extensive airfield, flight test range, aircraft systems test facilities and simulation laboratories. This project also provides technical and engineering support and associated research, development, test and evaluation plant and facilities for air-breathing propulsion systems. This includes accessories and components, fuels and lubricants. This project has extensive facilities for conducting both installed and uninstalled aircraft engine development, Test and Evaluation (DT&E). This project funds facility costs not chargeable to the user.

Effective FY 1995, NAVAIRWARCENACDIV fiscal operations were changed, making NAVAIRWARCENACDIV charging practices consistent with the Naval Air Warfare Center Weapons Division and in accordance with the Department of Defense Directive 3200.11. This action did not change net cost to the Navy MRTFB at NAVAIRWARCENACDIV.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$45,690) Continued civilian labor required to manage, operate, and maintain the MRTFB.
- (U) (\$4,444) Continued travel, transportation, collateral equipment, supplies and other expenses required for the support of the MRTFB

Page 137-16 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED



# UNCLASSIFIED

FY 1996 RPT&E, M BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864H

PROJECT NUMBER: W0654

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Weapons Center  
Aircraft Division

- (U) (\$7,068) Continued communications, purchased equipment maintenance, printing and reproduction, and purchased service contracts necessary to manage and sustain MRTFB operations.
- (U) (\$13,852) Continued the maintenance and repair program.
- (U) (\$3,592) Continued minor construction and major repair programs to reduce the Backlog of Maintenance and Repair (BMAR) items.
- (U) (\$7,035) Continued flight hour costs to maintain pilot proficiency in aircraft used to support the MRTFB mission.
- (U) (\$6,666) Continued equipment and building rentals. Continued annual utility costs and payment of worker's compensation cost for MRTFB employees.

## 2. (U) FY 1996 PLAN:

- (U) (\$2,714) Continue civilian labor required to manage, operate, and maintain the MRTFB.
- (U) (\$7,744) Continue travel, transportation, collateral equipment, supplies and other expenses required for the support of the MRTFB.
- (U) (\$15,107) Continue communications, purchased equipment maintenance, printing and reproduction, and purchased service contracts necessary to manage and sustain MRTFB operations (modified to reflect Defense Business Operating Funds operations at NAVALPMAF-ENACHIV which increased these services costs to MRTFB. These increased services costs were offset by funding reductions in civilian labor and maintenance and repair).
- (U) (\$6,901) Continue the maintenance and repair program.
- (U) (\$7,800) Continue minor construction and major repair programs to reduce the BMAR items.
- (U) (\$26,500) Continue flight hour costs to maintain pilot proficiency in aircraft used to support the mission.
- (U) (\$2,000) Contribute MRTFB's share of the Command's General and Administrative (G&A) expenses.

Page 137-13 of 137-16 Pages

Exhibit R-2

UNCLASSIFIED

# UNCLASSIFIED

## FF 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

### BUDGET ACTIVITY: 6.

PROGRAM ELEMENT: 0605864H

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT NUMBER: W0654

PROJECT TITLE: Naval Air Warfare Center

Aircraft Division

- (U) (\$4,028) Continue equipment and building rentals. Continue annual utility costs and payment of worker's compensation cost for MRTFB employees.

### 3. (U) FF 1996 PLAN:

- (U) (\$27,014) Operate mission essential MRTFB capabilities to meet critical test workload. Support essential elements of civilian labor required to manage, operate, and maintain the MRTFB.
- (U) (\$3,828) Provide essential transportation, collateral equipment, supplies and other expenses required to support all core MRTFB functions.
- (U) (\$14,209) Continue communications, purchased equipment maintenance, printing and reproduction, and purchased support contracts necessary to sustain core MRTFB operations.
- (U) (\$2,070) Continue essential maintenance and repair of MRTFB facilities and instrumentation.
- (U) (\$1,400) Provide major repair for essential MRTFB capabilities.
- (U) (\$2,300) Provide flight hour costs to maintain basic pilot proficiency in aircraft used to support the MRTFB mission.
- (U) (\$2,901) Continue mission essential equipment and building rentals. Support annual utility costs and payment of worker's compensation cost for MRTFB employees.
- (U) (\$18,066) Provide Command's G&A reimbursement for essential base services.

### 4. (U) FF 1997 PLAN:

- (U) (\$24,920) Operate mission essential MRTFB capabilities to meet critical test workload. Support essential elements of civilian labor required to manage, operate, and maintain core MRTFB functions.

Page 137-14 of 137-16 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0654

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center  
Aircraft Division

- (U) (\$2,908) Provide transportation, collateral equipment, supplies and other expenses required to support support core MRTFB functions.
- (U) (\$11,882) Continue communications, purchased equipment maintenance, printing and reproduction, and purchased service contracts necessary to sustain MRTFB essential operations.
- (U) (\$6,079) Provide maintenance and repair for essential MRTFB capabilities.
- (U) (\$1,400) Provide major repair programs for core MRTFB assets.
- (U) (\$7,360) Provide flight hour costs to maintain basic pilot proficiency in aircraft used to support the MRTFB mission.
- (U) (\$2,461) Continue mission essential equipment and building rentals. Support annual utility costs and payment of workers' compensation cost for MRTFB employees.
- (U) (\$17,066) Provide Command's G&A expense reimbursement for essential base services.

## B. (U) PROGRAM CHANGE SUMMARY:

(U) FY 1995 President's Budget:

(U) FY 1995 Appropriated:

(U) Adjustments from Appropriated/FY 1995 PRESBUDG

(U) FY 1996/97 PRESBUDG Submit:

FY 1994 92,276	FY 1995 96,700	FY 1996 XXX	FY 1997 XXX
XXX	92,900	XXX	XXX
-3,900	-329	XXX	XXX
88,376	92,571	79,966	74,576

# UNCLASSIFIED

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FY 1996 RDT&amp;E, BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605864N

PROJECT NUMBER: W0654

PROGRAM ELEMENT TITLE: Test and Evaluation Support

PROJECT TITLE: Naval Air Warfare Center  
Aircraft Division

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1994 adjustment reflects funding identified as part of the DoD Omnibus Reprogramming Package. The adjustment from FY 1995 PRESBDG reflects a proportional share of Congressional funding reductions.

(1) Schedule: Not applicable

### Technical: (ii)

### C. (1) OTHER PROGRAM FUNDING - UNFPI:

FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
(11)	MILITARY Projects	389,	426,	516,	481				
1,300	14,200	0	2,500	0	0	0	0	CONT.	CONT.

(1) PLATE TAGS:

(11) PE 0604759H, H.1.1 P.F. Investment

(11) PE 0605862U, H14. Instrumentation Modernization

D. (1) **SHFLOUE PROFILE:** Not available.

Page 137-16 of 137-16 Pages

Exhibit R-2

UNCLASSIFIED

33

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605865N

PROGRAM ELEMENT TITLE: Operational Test and Evaluation Capability

(U) COST: (Dollars in thousands)

## PROJECT

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0831 Operational Test and Evaluation Force Support	8,190	8,477	5,675	6,403	6,667	7,900	8,162	8,098	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element provides Commander, Operational Test and Evaluation Force (COMOPTEVFOR) general support funding for the planning, conducting, and reporting of operational test and evaluation of Navy weapon systems acquisition projects and the validation of tactics as required by directives of the Secretary of Defense and by Public Law.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$6,143) Issued operational test and evaluation reports to the Chief of Naval Operations (CNO) and the Secretary of the Navy in support of production decisions and fleet introduction decisions for new weapon systems. Continued operational testing and reporting of non-tactical automated information systems.
- (U) (\$2,047) Increased COMOPTEVFOR involvement in early operational assessments and developmental testing in accordance with the DOD 5000 acquisition guidance.

### 2. (U) FY 1995 PLAN:

- (U) (\$5,660) Operationally test and evaluate CNO projects commensurate with authorized funding level.
- (U) (\$1,887) Maintain level of effort associated with the DOD 5000 acquisition guidance which requires increased COMOPTEVFOR involvement in early operational assessments, developmental testing, and the Cost and Operational Effectiveness Analysis (COEA).

Page 138-1 of 138-3 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605865N

PROGRAM ELEMENT TITLE: Operational Test and Evaluation Capability

PROJECT NUMBER: R0831

PROJECT TITLE: Operational Test and Evaluation Force Support

## 3. (U) FY 1996 PLAN:

- (U) (\$4,954) Operationally test and evaluate CNO projects commensurate with authorized funding level. \$698 forward financed with FY 1995 funding.
- (U) (\$1,651) Maintain level of effort associated with the DOD 5000 acquisition guidance which requires increased COMOPTEVFOR involvement in early operational assessments, developmental testing, and the COEA. \$232 forward financed with FY 1995 funding.

## 4. (U) FY 1997 PLAN:

- (U) (\$4,802) Operationally test and evaluate CNO projects commensurate with authorized funding level.
- (U) (\$1,601) Maintain level of effort associated with the DOD 5000 acquisition guidance which requires increased COMOPTEVFOR involvement in early operational assessments, developmental testing, and the COEA.

## B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	8,190	8,637	XXX	XXX
(U) FY 1995 Appropriated:	XXX	8,637	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	0	-160	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	8,190	8,477	5,675	6,403

## (U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: FY 1995 reductions are due to congressional undistributed cuts for university research (-14), consulting services (-109), travel (-12), and assessment for Small Business Innovative Research (-25).
- (U) Schedule: Not applicable.

Page 138-2 of 138-3 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605865N

PROJECT NUMBER: R0831

PROGRAM ELEMENT TITLE: Operational Test and Evaluation Capability

PROJECT TITLE: Operational Test and Evaluation Force Support

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in Thousands)

	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
(U) MILCON P-141	8,200	0	0	0	0	0	0	0	0	8,200

(U) RELATED RDT&E: Not applicable

D. (U) SCHEDULE PROFILE: Not applicable.

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N  
PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & FY 1994 TITLE ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0739 Navy C4I Top Level Requirements 2,098	1,690	1,630	1,607	1,660	1,949	2,032	2,078	CONT.	CONT.
X0706 EMI Reduction and Radio Frequency Management 1,908	1,631	2,008	2,040	2,025	2,383	2,452	2,527	CONT.	CONT.
TOTAL	4,006	3,321	3,647	3,685	4,332	4,484	4,605	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Project R0739 Navy C4I Top Level Requirements - Analyzes fleet requirements and research and development technology to develop top level plans for operating Navy Communications, Command and Control Computers, and Intelligence (C4I) and space systems in the Space and Electronic Warfare (SEW) mission area. Project X0706 Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management develops advanced technology to identify and reduce EMI sources from Navy systems and platforms.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605866N

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

(U) RESOURCES: (Dollars in Thousands)

## PROJECT

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R0739 Navy Command Control, Communications, Computers and Intelligence C'I Top Level Requirements	2,098	1,690	1,630	1,607	1,660	1,949	2,032	2,078	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides analysis of fleet requirements and research and development technology to develop top level plans for operating Navy Communications, C'I and space systems in the Space and Electronic Warfare mission area.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$1,723) Identified programs and actions needed to develop a common tactical picture for command and control applications. Showed synergistic effect of enhanced data fusion, multimedia communications, Global Positioning System accuracy, amphibious C'I, multiband antennas, and combat identification.
- (U) (\$375) Related the effects of changing surface ship force structure to Navy Command and Control System Ashore and Afloat requirements.

Page 139-2 of 139-11 Pages

Prohibit R-2

# UNCLASSIFIED

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N

PROJECT NUMBER: R0739  
PROJECT TITLE: Navy C'I Top Level Rqmts  
PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

## 2. (U) FY 1995 PLAN:

- (U) (\$825) Identify programs and actions needed to increase efficiency of C'I links by implementing data correlation and enhanced information management.
- (U) (\$865) Identify programs and actions needed to further the integration and implementation of C'I architecture in littoral areas.

## 3. (U) FY 1996 PLAN:

- (U) (\$794) Identify programs and actions needed to provide networking of C'I systems, e.g. enhanced multilevel security and mine warfare C'I.
- (U) (\$836) Identify programs and actions needed to provide joint capabilities for C'I architecture, e.g. enhanced near real time targeting, real time joint planning/coordination, early intelligence preparation of battle space, and hardkill/softkill weapons.

## 4. (U) FY 1997 PLAN:

- (U) (\$725) Identify programs and actions needed to provide networking of C'I systems, e.g. enhanced multilevel security and mine warfare C'I.

Page 139-3 of 139-11 Pages

Exhibit R-2

# UNCLASSIFIED

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FY 1996 RDT&E.N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N

PROJECT NUMBER: R0739

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

PROJECT TITLE: Navy C'I Top Level Rqmts

- (U) (\$882) Identify programs and actions needed to provide joint capabilities for C'I architecture, e.g. enhanced near real time targeting, real time joint planning/coordination, early intelligence preparation of battle space, and hardkill/softkill weapons.

## B. (U) PROGRAM CHANGE SUMMARY:

- (U) FY 1995 President's Budget:
- (U) FY 1995 Appropriated:
- (U) Adjustments from Appropriated/FY 95 PRESUDG:
- (U) FY 1996/97 PRESUDG Submit

<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
2,099	1,850		
	1,850		
-1	-160		
2,098	1,690	1,630	1,607

## (U) CHANGE SUMMARY EXPLANATION:

- (U) Funding: FY 1994 reduction is due to end of year execution update (-1). FY 1995 reduction is due to Congressional undistributed cuts for university research (-115), FFRDC's (-23) travel, (-2) an adjustment for Small Business Innovative Research (-20).
- (U) Schedule: Not applicable.
- (U) Technical: Not applicable.

Page 139-4 of 139-11 Pages

Exhibit R-2

# UNCLASSIFIED

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N

PROJECT NUMBER: R0739  
PROJECT TITLE: Navy C'I Top Level Rqmts  
PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

Page 139-5 of 139-11 Pages

Exhibit R-2

# UNCLASSIFIED

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

RUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
X0706 EMI Reduction and Radio Frequency Management	1,908	1,631	2,008	2,040	2,025	2,383	2,452	2,527	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Electromagnetic Interference (EMI) Reduction and Radio Frequency (RF) Management. This project develops tools to identify and reduce EMI sources from Navy systems and platforms. There are several tools under development to identify and reduce EMI through proper use of the electromagnetic spectrum. The Battle Force (BF) EMI Evaluation System (BEES) is a computer-aided force-level EMI evaluation tool that is used to develop BF Electromagnetic Environmental Effects (E3) policy for naval operations in the joint arena and fosters national and international inter-platform EM compatibility (EMC) during operations and exercises. The Automated Spectrum Planning, Engineering Coordination and Tracking System (ASPECTS) is a computer-aided force-level communications planning and frequency management tool that is used to plan communication links, analyze, allocate and assign communication and radar frequencies for fleet operations. The Waveform Recording and Playback System (WRAPS) is a unique E3 testing system to be used to measure degradation of a system performance due to EMI. The waveform of a potential interfering system is recorded; the recording can then be played back at a variety of test sites to evaluate the vulnerability of other systems to this waveform. Research includes advanced technology chamber (ATC), shielding effectiveness of composite materials, application of fiber optics to signal cables to eliminate EMI, and coherent measurements and development of E3 testing criteria/procedures.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)  
PROJECT NUMBER: X0706  
PROJECT TITLE: Electro-magnetic Interference (EMI) Reduction and Radio Frequency (RF) Management

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$456) Automated Spectrum Planning, Engineering, Coordination and Tracking System (ASPECTS): Incorporated Navy user feedback into ASPECTS development. Continued High Frequency (HF) analysis capability, incorporating engineering checks into the Allocation Application Package and tailoring software for NAVEMSCEN and SYSCOMS. Continued to develop and incorporate database transfer enhancements. Continued expanding Electromagnetic Compatibility (EMC) Analysis Program (EMCAP) to include 100 platforms.
- (U) (\$953) Battle Force (BF) EMI Evaluation System (BEES): Continued integrating BEES analysis criteria into BEES Analyst Terminal to develop a post exercise EMI analysis capability at platform system levels. Integrated automated combat system starting with Detection-to-Engagement (DTE) for Anti-Air Warfare (AAW) EMC analysis tool into BEES.
- (U) (\$80) Waveform Recording and Playback System (WRAPS): Began developing (WRAPs) test and evaluation applications for use in avoiding EMI in the procurement of Navy Systems.
- (U) (\$419) Criteria and Test Procedures: Continued developing new Navy criteria and test procedures to validate conversion of industry standards to military standards.

Page 139-7 of 139-11 Pages

Exhibit R-2

# UNCLASSIFIED

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N

PROGRAM ELEMENT TITLE: Navy Space and Electronic Warfare Support (SEW)

PROJECT NUMBER: X0706  
PROJECT TITLE: Electro-magnetic Interference (EMI) Reduction and Radio Frequency (RF) Management

## 2. (U) FY 1995 PLAN:

- (U) (\$316) ASPECTS: Begin development of ASPECTS Terrain Analysis Capability. Continue to develop and incorporate database transfer enhancements. Develop Frequency Assignment Algorithms for EMCAP. Develop, plan and coordinate with Program Manager (PM) to include ASPECTS in Joint Maritime Command Information System-Afloat (JMICS-A). Develop software for ASPECTS for inclusion in Communications Support Systems (CSS).
- (U) (\$784) BEES: Incorporate EMCAP into BEES to provide accurate measured radar range, power, frequency and geometry data needed to analyze Electromagnetic Environmental Effects (E3). Developing E3 Information Network software bridges to obtain access to multiple databases for BEES use.
- (U) (\$65) WRAPS: Supplement WRAPS with the capability to measure the Electromagnetic Environment (EME) of the BF for use in EMCAP and BEES, to determine compliance with the Frequency Management Plans and detect EME unauthorized users of the frequency spectrum and the presence of hostile emitters.
- (U) (\$466) Criteria and Test Procedures: Develop test procedures for electromagnetic vulnerability and susceptibility evaluation of Non-developmental items (NDI) and Commercial off-the-shelf (COTS) procured Navy communications-electronic (CE) equipment.

Page 139-8 of 139-11 Pages

Exhibit R-2

# UNCLASSIFIED

177



# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N

PROJECT TITLE: Navy Space and Electronic Warfare Support (SEW)

PROJECT NUMBER: X0706  
PROJECT TITLE: Electro-magnetic Interference (EMI) Reduction and Radio Frequency (RF) Management

## 3. (U) FY 1996 PLAN:

- (U) (\$550) ASPECTS: Complete ASPECTS software development for inclusion in CSS. Continue to develop software for conversion of Frequency Management Module (FMM) of ASPECTS to TAC-4 in JMCIS-A. Continue to develop Frequency Assignment Algorithms for EMCAP. Develop E3 Information Network software bridges to obtain access to multiple data bases for ASPECTS use.
- (U) (\$803) BEES: Develop software for conversion of BEES to TAC-4 in JMCIS-A. Develop models and EMI displays for BEES Analyst Terminal to increase fidelity of modeling capability. Complete development of Report Generator for BEES Analyst to provide initial capability to model operational decisions.
- (U) (\$180) WRAPS: Develop capability to measure and record the EME in real-time in order to focus WRAPS and record specific radio frequency (RF) signatures for use in EMI investigations.
- (U) (\$475) Criteria and Test Procedures: Complete development of capability to assess system performance in topside HF EME. Begin developing criteria and test procedures using industry standards when possible.

Page 139-9 of 139-11 Pages

Exhibit R-2

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605866N

PROGRAM ELEMENT TITLE:

Navy Space and Electronic  
Warfare Support (SEW)

PROJECT NUMBER: X0706  
PROJECT TITLE: Electro-  
magnetic Interference (EMI)  
Reduction and Radio  
Frequency (RF) Management

### 4. (U) FY 1997 PLAN:

- (U) (\$570) ASPECTS: Complete development of software for conversion of FMM to TAC-4 in JMCIS-A. Continue to develop Frequency Assignment Algorithms for EMCAP. Develop capability to receive real-time recordings of the EME to be used in frequency management. Continue to develop E3 Information Network Software bridges.
- (U) (\$745) BEES: Continue to develop models and EMI displays for BEES Analyst Terminal to increase model fidelity. Develop Decision Trees and begin to incorporate them into BEES to model operational decisions in response to EMI degradation. Complete software development for BEES conversion to TAC-4 and JMCIS-A.
- (U) (\$180) WRaPS: Continue development of real-time recording of the EME for use in ASPECTS frequency management.
- (U) (\$545) Criteria and Test Procedures: Develop Coherent Measurement Techniques for E3 testing.

Page 139-10 of 139-11 Pages

Exhibit R-2

# UNCLASSIFIED

179

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605866N PROJECT NUMBER: X0706  
 PROGRAM ELEMENT TITLE: Navy Space and Electronic PROJECT TITLE: Electro-  
 Warfare Support (SEW) Magnetic Interference (EMI)  
 Reduction and Radio  
 Frequency (RF) Management

## B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1995 President's Budget:	1,907	1,669		
(U) FY 1995 Appropriated:		1,669		
(U) Adjustments from Appropriated/FY 95 PRESBUDG:	+1	-38		
(U) FY 1996/97 PRESBUDG Submit	1,908	1,631	2,008	2,040

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1994 reflects (+1) End of Year Execution Update. FY 1995 reduction is due to Congressional undistributed cuts for university research (-3), travel (-2), and cut for Small Business Innovative Research (-33.)

(U) Schedule: None.

(U) Technical: None.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

Page 139-11 of 139-11 Pages

Exhibit R-2

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605867N  
PROGRAM ELEMENT TITLE: SEW Surveillance/Recon SPT

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL
Z1034 Tac Sat Recon Office										
	12,561	10,715	11,265	11,502	11,476	12,892	13,367	13,856	CONT	CONT
R2007 Space Mgmt Support										
	912	826	869	839	871	1,024	1,055	1,085	CONT	CONT
TOTAL	13,473	11,541	12,134	12,341	12,347	13,916	14,422	14,941	CONT	CONT

### (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

(U) Z1034: Established to exploit all national and Service sensor systems to improve tactical support to fleet operational commanders. Project also supports fleet exercises, which provide the venue for testing modifications to existing programs and being made aware of new requirements.

(U) R2007: This project provides resources to the Naval Space Command for the conduct of its support testing.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E,N MANAGEMENT SUPPORT because it supports the operation and installations required for general research and development use.

Page 140-1 of 140-9 Pages

Exhibit R-2

# UNCLASSIFIED

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605A67N  
(U) COST (Dollars in Thousands) PROGRAM ELEMENT TITLE: SEW SURVEILLANCE/RECON SPT

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE PROGRAM	TOTAL PROGRAM
21034 Tac Sat Recon Office										
	12,561	10,715	11,265	11,502	11,476	12,892	13,367	13,856	CONT	CONT

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Established to exploit all National and Service sensor systems to improve tactical support to fleet operational commanders. Project also supports fleet exercises, which provide the venue for testing modifications to existing programs for satisfaction of requirements. Additional detailed information is available at a higher level of classification.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$2,008) Joint/Navy Tactical Support
  - (U) (\$1,963) Surveillance of Non-Cooperative Targets
  - (U) (\$4,133) Timely Dissemination of Tactically Significant Data
  - (U) (\$4,457) Emerging R&D Opportunities

Page 140-2 of 140-9 Pages

Exhibit R-2

# UNCLASSIFIED

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## FY 1996 PDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605867N

PROGRAM ELEMENT TITLE: SEW SURVEILLANCE/RECON SPT

PROJECT NUMBER: Z1034

PROJECT TITLE: TAC SAT RECON OFFICE

### 2. (U) FY 1995 PLAN:

- (U) (\$3,800) Joint Exercises/Fleet Support
- (U) (\$ 700) Surveillance of Non-Cooperative Targets
- (U) (\$1,030) Tactical Displays
- (U) (\$3,360) Data Processing and Dissemination
- (U) (\$1,825) Dual Use/Leading Edge Technologies

### 3. (U) FY 1996 PLAN:

- (U) (\$3,645) Joint Exercises/Fleet Support
- (U) (\$1,750) Surveillance of Non-Cooperative Targets
- (U) (\$1,000) Tactical Displays
- (U) (\$1,620) Data Processing and Dissemination
- (U) (\$3,250) Dual Use/Leading Edge Technologies

Page 140-3 of 140-9 Pages

Exhibit R-2

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605867N PROJECT NUMBER: Z1034

PROGRAM ELEMENT TITLE: SEW SURVEILLANCE/RECON SPT PROJECT TITLE: TAC SAT RECON OFFICE

### 4. (U) FY 1997 PLAN:

- (U) (\$3,632) Joint Exercises/Fleet Support
- (U) (\$1,750) Surveillance of Non-Cooperative Targets
- (U) (\$1,000) Tactical Displays
- (U) (\$1,870) Data Processing and Dissemination
- (U) (\$3,250) Dual Use/Leading Edge Technologies

### B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	10,616	13,611	XXX	XXX
(U) FY 1995 Appropriated:	XXX	11,111	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	+1,945	-396	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	12,561	10,715	11,265	11,502

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: Sept 1994  
PROJECT NUMBER: Z1034  
PROJECT TITLE: TAC

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605867N

PROGRAM ELEMENT TITLE: SEW SURVEILLANCE/RECON SPT

SAT RECON OFFICE

## (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The funding adjustments that occurred in FY 1994 were due to a reprogramming action of +1,950 to fund Project SABER and a funding action of -5 that was reprogrammed to fund a Contract Close-out Action. The funding reduction in FY 1995 is due to PBD 701 University Research (-130), PBD 631 FFRDC Adjustment (-29), PBD 633 Travel (-19), and SBIR (-218).

(U) Schedule: Not Applicable

(U) Technical: Not Applicable

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands) Not Applicable

FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	TOTAL
ACTUAL ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE	COMPLETE PROGRAM

(U) RELATED RDT&E: Not Applicable

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605867N  
PROGRAM ELEMENT TITLE: SEW SURVEILLANCE/RECON SPT

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
R2007 Space Mgmt Support										
	912	826	869	839	871	1,024	1,055	1,085	CONT	CONT

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This project provides resources to the Naval Space Command for the conduct of its support testing.

### (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

#### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$180) Began prototyping of equipment to provide most cost effective command, control and data distribution architecture for space support to the fleet.
- (U) (\$370) Completed test and demonstration of systems for tactical integration of space-derived information.
- (U) (\$152) Began technology supplement for support of the evolution of Space and Electronic Warfare (SEW) concept as part of revision to Naval Space Command Technology plan.
- (U) (\$210) Completed prototyping and began test and demonstration of system for tactical integration of space-derived information.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605867N

PROJECT NUMBER: R2007

PROGRAM ELEMENT TITLE: SEW SURVEILLANCE/RECON SPT

PROJECT TITLE: SPACE MANAGEMENT SUPPORT

## 2. (U) FY 1995 PLAN:

- (U) (\$210) Complete prototyping and commence test and demonstration of system for tactical space support to the fleet.
- (U) (\$566) Evaluate advanced technology options for space support to the fleet.
- (U) (\$50) Complete technology supplement for support of the evolution of the SEW concept as part of revision to Naval Space Technology Plan.

## 3. (U) FY 1996 PLAN:

- (U) (\$200) Continue testing and demonstration of system for tactical space support to the fleet.
- (U) (\$319) Continue evaluating advanced technology options for space support to the fleet.
- (U) (\$350) Commence exploration of advanced data processing and electronic dissemination of space derived products.

Page 140-7 of 140-9 Pages

Exhibit R-2

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605867N

PROJECT NUMBER: R2007

PROGRAM ELEMENT TITLE: SEW SURVEILLANCE/RECON SPT

PROJECT TITLE: SPACE MGMT SUPPORT

### 4. (U) FY 1997 PLAN:

- (U) (\$172) Complete testing and demonstration of system for tactical space support to the fleet.
- (U) (\$257) Continue evaluating advanced technology options for space-based assets for providing tactical support to the fleet.
- (U) (\$350) Continue exploration of and begin demonstration of advanced data processing and electronic dissemination of space-derived products.
- (U) (\$60) Commence development of update to Naval Space Technology Plan to address changes resulting from the continued evolution of the SEW concept.

### B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1995 President's Budget:	912	954	XXX	XXX
(U) FY 1995 Appropriated:	XXX	954	XXX	XXX
(U) Adjustments from Appropriated/FY 1995 PRESBUDG:	0	-128	XXX	XXX
(U) FY 1996/97 PRESBUDG Submit:	912	826	869	839

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605867N  
PROGRAM ELEMENT TITLE: SEW SURVEILLANCE/RECON SPT

PROJECT NUMBER: R2007  
PROJECT TITLE: SPACE MGMT SUPPORT

## (U) CHANGE SUMMARY EXPLANATION

(U) Funding: FY 1995 funding reduction is due to PBD 701 University Research (-114), PBD 633 Travel (-1), and SBIR (-13).

(U) Schedule: Not Applicable

(U) Technical: Not Applicable

C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands) Not Applicable

(U) RELATED RDT&E: Not Applicable

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191

# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605871M

PROGRAM ELEMENT TITLE: Marine Corps Tactical Exploitation of National Capabilities (TENCAP)

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C1424 Tactical Exploitation of National Capabilities (TENCAP)	4,809	758	2,984	3,063	3,590	4,117	4,078	4,078	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program is designed to enhance the ability of tactical Marine Corps forces to exploit the capabilities of national intelligence-gathering systems. Congressionally directed, it requires close liaison with the intelligence community and involves complex and highly-sensitive activities.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605871M

PROGRAM ELEMENT TITLE: Marine Corps Tactical Exploitation of National Capabilities (TENCAP)

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C1424 Tactical Exploitation of National Capabilities (TENCAP)	4,809	758	2,984	3,063	3,590	4,117	4,078	4,078	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program is designed to enhance the ability of tactical Marine Corps forces to exploit the capabilities of national intelligence-gathering systems. Congressionally directed, it requires close liaison with the intelligence community and involves complex and highly-sensitive activities.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$1,492) Developed extra high frequency (S-Band) architecture. Developed M-22 Tactical Network with primary objective of developing Marine Corps-wide national secondary imagery dissemination capability.
- (U) (\$1,057) Participated in National Intelligence Systems Development (NISD) in the following areas: developed prototype and testing of RADIANT HAIL, a man-portable multi-source tactical information receiver and processor; explored concept of secondary imagery to lower echelon Marine units utilizing RADIANT TIN imagery processing. RADIANT TIN is a joint Navy/Marine Corps TENCAP project to prove the operational utility of a new imagery software program.
- (U) (\$1,612) Completed Marine Corps TENCAP-related support projects, including the update of TENCAP-related plans, and prepared Tactical Impact Statements (TIS) on National Intelligence Systems as required by Congress. Demonstrated TENCAP system capabilities with the Fleet Marine Forces (FMF). Coordinated TENCAP training/exercise support for Marine Corps units.



# UNCLASSIFIED

FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605871M

PROGRAM ELEMENT TITLE: Marine Corps Tactical Exploitation of  
National Capabilities (TENCAP)

PROJECT NUMBER: C1424  
PROJECT TITLE: TENCAP

- (U) (\$366) Developed a Marine Corps TENCAP initiative to create permanent capabilities for accessing, using, and disseminating advanced products from National Systems, at Marine Aviation Weapons Training Squadron (MAWTS) to test/evaluate methods/techniques for dissemination of national-level information to Marine Units.
  - (U) (\$282) Completed funding the Marine Corps portion for Chariot development of the S-Band architecture. Chariot is an advanced tactical S-Band satellite communications transceiver. Initiated development of Asynchronous Transfer Mode (ATM) intelligence dissemination network.
2. (U) FY 1995 PLAN:
- (U) (\$295) Participate in NISD, technology assessments, utility evaluations and submit TIS as required by Congress to ensure Marine Corps requirements are addressed in basic system design.
  - (U) (\$87) Participate in Marine Corps TENCAP-related support projects including TENCAP concept development and feasibility demonstrations.
  - (U) (\$164) Participate in TENCAP system demonstrations/exercises at the FMF and supporting establishments including: Joint Chiefs of Staff directed Special Project 95; Combined Arms Exercise, which include ground and air elements in a Marine Corps live fire exercise; and Weapons and Tactics Instructor course.
  - (U) (\$130) Coordinate and fund TENCAP training/exercise support to enhance operational forces' understanding of national intelligence support and improve the use of national data.
  - (U) (\$82) Develop proposals to Military Exploitation of Reconnaissance and Intelligence Technology (MERIT) board to explore the feasibility of Precision Naval Gunfire Targeting Support. Continue development of ATM intelligence dissemination network.
3. (U) FY 1996 PLAN:
- (U) (\$1,184) Participate in NISD, technology assessments, utility evaluations and submit TIS as required by Congress.

Page 141-3 of 141-6 Pages

Exhibit R-2

# UNCLASSIFIED

194

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605871M

PROGRAM ELEMENT TITLE: Marine Corps Tactical Exploitation of  
National Capabilities (TENCAP)

PROJECT NUMBER: C1424  
PROJECT TITLE: TENCAP

- (U) (\$1,550) Demonstrate the feasibility of alternate receivers, processors, communication paths, and means of dissemination to include the S-Band architecture developed with FY 1994 Congressional increase of funds.
  - (U) (\$100) Coordinate and fund training in employing sensitive national collection, processing, exploitation and dissemination systems to support Marine Air-Ground Task Force (MAGTF), ground, and aviation operations.
  - (U) (\$100) Sponsor/participate in TENCAP systems demonstrations/exercises at the FMF and supporting establishments.
  - (U) (\$50) Continue development of Marine Corps' proposals to explore the feasibility of ATM intelligence dissemination network initiated under FY 1995 MERIT.
4. (U) FY 1997 PLAN:
- (U) (\$1,209) Participate in NISD, technology assessments, utility evaluations and submit TIS as required by Congress.
  - (U) (\$1,404) Participate in Marine Corps TENCAP-related support projects including TENCAP concept development and feasibility demonstrations.
  - (U) (\$100) Participate in TENCAP system demonstrations/exercises at FMF and supporting establishments.
  - (U) (\$150) With other Services, explore national technologies to optimize support to tactical forces from sensitive current and future national collection, processing or dissemination systems.
  - (U) (\$150) Coordinate/fund TENCAP training/exercise support.
  - (U) (\$50) Continue development of proposals to explore the MERIT initiatives.

Page 141-4 of 141-6 Pages

Exhibit R-2

# UNCLASSIFIED

195

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995  
PROJECT NUMBER: C1424  
PROJECT TITLE: TENCAP

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605871M

PROGRAM ELEMENT TITLE: Marine Corps Tactical Exploitation of  
National Capabilities (TENCAP)

B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994 4,241	FY 1995 1,019	FY 1996 N/A	FY 1997 N/A
(U) FY 1995 President's Budget:				
(U) FY 1995 Appropriated:	N/A	1,019	N/A	N/A
(U) Adjustments from Appropriated/ FY 1995 PRESBUDG:	+568	-261	N/A	N/A
(U) FY 1996/97 PRESBUDG Submit:	4,809	758	2,984	3,063

(U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1994 funding increased by a total of \$568: \$264 was provided for Chariot S-Band architecture development and initiation of ATM intelligence dissemination network development; and \$304 was a 6.7% program increase. FY 1995 funding was decreased by a total of \$261 for the following undistributed Congressional reductions: Consulting Services, Small Business Innovative Research, University Research, and Travel.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

# UNCLASSIFIED

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605871M

PROGRAM ELEMENT TITLE: Marine Corps Tactical Exploitation of  
National Capabilities (TENCAP)

PROJECT NUMBER: C1424  
PROJECT TITLE: TENCAP

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E:

- (U) PE 0603730A (Tactical Surveillance System - Advanced Development), Army TENCAP, Project D560
- (U) PE 0603766A (Tactical Electronic Surveillance System - Advanced Development), Army TENCAP, Project D907
- (U) PE 0604740A (Tactical Surveillance System - Engineering Development), OSD TENCAP, Project D662
- (U) PE 0902398M (United States Special Operations Command), Chariot Program
- (U) PE 0605867N (SEW Surveillance/Reconnaissance Support), Project Z1034

D. (U) SCHEDULE PROFILE: Not applicable.

Page 141-6 of 141-6 Pages

Exhibit R-2

# UNCLASSIFIED

197

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

(U) COST: (Dollars in Thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0030 Marine Corps Studies and Analysis										
	2,677	1,808	2,288	3,979	3,979	3,979	3,979	3,979	CONT.	CONT.
C0033 Operational Test and Evaluation Support										
	1,741	1,839	1,909	2,344	1,797	2,487	2,487	2,487	CONT.	CONT.
C0073 Human Resources Management and Forecasting										
	2,078	1,576	1,717	1,692	1,740	1,787	1,691	1,691	CONT.	CONT.
TOTAL	6,496	5,223	5,914	8,015	7,516	8,253	8,157	8,157	CONT.	CONT.

(U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program element (PE) provides the analytical foundation for the Marine Corps Studies System (MCSS), including mandated Mission Area Analyses and Cost and Operational Effectiveness Analyses. The MCSS is the front end of the Marine Corps' acquisition system, supporting the Concepts Based Requirements System and Combat Development Process. In addition, the PE supports Marine Corps Operational Test and Evaluation (OT&E) Activity representatives for Marine Corps OT&E and OT&E performed by Fleet Marine Force Commanders and Technical Support Activities. The PE also funds the advanced development of systems and equipment to improve the manpower readiness of the Fleet Marine Force.

(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under RDT&E MANAGEMENT SUPPORT because it supports the operations and installations required for general research and development use.

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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0030 Marine Corps Studies and Analysis	2,677	1,808	2,288	3,979	3,979	3,979	3,979	3,979	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program provides the analytical foundation for the Marine Corps Studies System (MCSS). The MCSS is the front end of the Marine Corps' acquisition system, supporting the Concepts Based Requirements System and Combat Development Process. This program funds a variety of studies to include: mandated Mission Area Analysis (MAA); technology assessments; force structure analysis; weapons systems analysis; concept development and analysis studies; cost benefit analysis; training assessments; feasibility analysis; scenario development; and system threat analysis. The MCSS also is required to fund for the execution of Milestone I Cost and Operational Effectiveness Analysis (COEA) studies in support of program Objective Memorandum initiatives. This program provides quantitative information to decision makers on which to base improvements to doctrine, training and education, force structure and procurement. The MCSS also provides analytical support for decisions related to the resolution of current problems identified by the operating forces.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$1,478) Executed 29% of the studies approved in the FY 1994 Marine Corps Studies Master Plan (MCSMP) to include four mandated MAAs and two COEAs.
- (U) (\$1,199) Funded the continuation of an estimated twelve continuing FY 1993 study initiatives.

Page 142-2 of 142-13 Pages

Exhibit R-2

# UNCLASSIFIED

190

# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT NUMBER: C0030

PROJECT TITLE: Marine Corps Studies and Analysis

### 2. (U) FY 1995 PLAN:

- (U) (\$822) Execute an estimated 16% of the approved FY 1995 MCSMP. The MCSMP includes eight mandated MAAs and seven COEAs.
- (U) (\$986) Fund the continuation of an estimated nine continuing FY 1994 study initiatives.

### 3. (U) FY 1996 PLAN:

- (U) (\$1,988) Execute an estimated 35% of the studies approved in the FY 1996 MCSMP. The MCSMP will include six mandated MAAs and eight COEAs.
- (U) (\$300) Fund the continuation of an estimated three FY 1995 study initiatives including one MAA and one COEA.

### 4. (U) FY 1997 PLAN:

- (U) (\$2,780) Execute an estimated 56% of the studies approved in the FY 1997 MCSMP. The MCSMP included six mandated MAAs and seven COEAs.
- (U) (\$1,199) Fund the continuation of an estimated ten FY 1996 study and analysis initiatives.

# UNCLASSIFIED

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## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M PROJECT NUMBER: C0030  
 PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support PROJECT TITLE: Marine Corps Studies and Analysis

### B. (U) PROGRAM CHANGE SUMMARY:

	FY 1994	FY 1995	FY 1996	FY 1997
(U) FY 1995 President's Budget:	3,436	2,288	N/A	N/A
(U) FY 1995 Appropriated:	N/A	2,288	N/A	N/A
(U) Adjustments from Appropriated/ FY 1995 PRESBUDG:	-759	-480	N/A	N/A
(U) FY 1996/97 PRESBUDG Submit:	2,677	1,808	2,288	3,979

### (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1994 decrease of \$759 resulted in completion of only 29% of the approved studies vice the 42% planned. Scheduled MAAs were reduced from nine to four and COEAs were reduced from twenty-five to two. FY 1995 funding was decreased by a total of \$480 for the following undistributed Congressional reductions: Consulting Services, Small Business Innovative Research, University Research, and Travel.

(U) Schedule: Not applicable.

(U) Technical: Not applicable.

### C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: PE 0605154N (Center for Naval Analyses (CNA)), Project C0031, Marine Corps Operations Analysis Group

D. (U) SCHEDULE PROFILE: Not applicable.

# UNCLASSIFIED



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FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

(U) COST: (Dollars in Thousands)

## PROJECT

NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0033 Marine Corps Operational Test and Evaluation Activity (MCOTEA)	1,741	1,839	1,909	2,344	1,797	2,487	2,847	2,487	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program supports the Marine Corps Operational Test and Evaluation (OT&E) Activity (MCOTEA) representatives for Marine Corps OT&Es and OT&Es performed by Fleet Marine Force Commanders and Technical Support Activities. This program also provides for OT&E of systems prior to procurement by the Marine Corps to include test planning, operational testing, and Independent Evaluation Report (IER) preparation.

## (U) PROGRAM ACCOMPLISHMENTS AND PLANS:

### 1. (U) FY 1994 ACCOMPLISHMENTS:

- (U) (\$936) MCOTEA: Provided in-house support, salaries and utilities.
- (U) (\$194) C-17 Aircraft: Participated in multi-service Initial Operational Test and Evaluation (IOT&E).
- (U) (\$147) Light Armored Vehicle - Air Defense (LAV-AD): Completed IOT&E and published IER.
- (U) (\$30) Light Armored Vehicle - Day/Night Sight (LAV-DNS): Wrote test plans, conducted IOT&E, and published IER.
- (U) (\$158) Tactical Combat Operations (TCO) Systems: Wrote test plans, conducted IOT&E, and published IER.
- (U) (\$2) Tray Ration Heating System (TRHS): Completed IOT&E and published IER.
- (U) (\$274) Javelin Medium Anti-Tank Weapon: Completed multi-service IOT&E and published IER.

Page 142-5 of 142-13 Pages

Exhibit R-2

# UNCLASSIFIED

# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support Analysis

PROJECT NUMBER: C0033

PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

### 2. (U) FY 1995 PLAN:

- (U) (\$977) MCOTEA: Provide in-house support, salaries and utilities.
- (U) (\$50) Manpack Ultra High Frequency Satellite Communications Terminal (AN/PSC-5): Write test plans, conduct IOT&E, and publish IER.
- (U) (\$190) C-17 Aircraft: Participate in IOT&E and publish IER.
- (U) (\$20) Medium Tactical Vehicle Replacement (MTVR) Program: Write test plans, conduct operational analysis (OA), and publish IER.
- (U) (\$20) Nuclear/Biological/Chemical (NBC) Hazardous Warning System (HAZWARN): Conduct IOT&E and publish IER.
- (U) (\$200) Improved Direct Air Support Central (IDASC): Conduct IOT&E and publish IER.
- (U) (\$25) Tactical Air Operations Module (TAOM) Block Upgrade: Conduct IOT&E and publish IER.
- (U) (\$65) Magnetic Countermine System (MCS): Conduct IOT&E and publish IER.
- (U) (\$100) Thermal Weapons Imaging System (TWIS): Conduct IOT&E and publish IER.
- (U) (\$20) 81mm Infared Mortar Cartridge (81mm IMC): Conduct IOT&E and publish IER.
- (U) (\$31) Joint Surveillance Target Attack Radar System (JSTARS) Connectivity: Participate in multi-service IOT&E.
- (U) (\$31) Portable Automated Computerized Lightweight Expandable Search System: Conduct IOT&E.
- (U) (\$110) Mobile Electronic Warfare Support System (MEWSS) Product Improvement Program (PIP): Conduct IOT&E and publish IER.

Page 142-6 of 142-13 Pages

Exhibit R-2

# UNCLASSIFIED

203

# UNCLASSIFIED

## FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M  
PROGRAM ELEMENT TITLE: Marine Corps Program Wide  
Support Analysis

PROJECT NUMBER: C0033  
PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

### 3. (U) FY 1996 PLAN:

- (U) (\$959) MCOTEA: Provide in-house support, salaries, and utilities.
- (U) (\$55) Designated Marksman Rifle (DMR): Conduct Operational Testing and Evaluation (IOT&E).
- (U) (\$60) M-29 Arresting Gear: Conduct IOT&E and publish IER.
- (U) (\$40) Remote Landing Site Tower: Conduct IOT&E and publish IER.
- (U) (\$498) AN/TPS-59 (Modification) Radar: Conduct IOT&E and publish IER.
- (U) (\$50) Lightweight Medium Machine Gun Tripod (M122E1): Conduct IOT&E and publish IER.
- (U) (\$50) Improved Heavy Machine Gun Tripod (IHMG): Conduct IOT&E and publish IER.
- (U) (\$80) Combat Shotgun (CS): Conduct IOT&E and publish IER.
- (U) (\$67) Marine Expeditionary Force (MEF) Intelligence Analysis System (IAS): Conduct IOT&E and publish IER.
- (U) (\$50) Manpack Ultra High Frequency Stellite Communications Terminal (AN/PSC-5): Write test plans, conduct IOT&E and publish IER.

# UNCLASSIFIED

204

# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6      PROGRAM ELEMENT: 0605873M      PROJECT NUMBER: C0033  
PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support Analysis      PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

4. (U) FY 1997 PLAN:
- (U) (\$965) MCOTEA: Provide in-house support, salaries, and utilities.
  - (U) (\$46) Drivers Thermal Viewer: Conduct IOT&E and publish IER.
  - (U) (\$150) Joint Tactical Information Distribution System (JTIDS) Module (JM) and Interface Box (JIB): Conduct IOT&E and publish IER.
  - (U) (\$30) NBC Reconnaissance System (NBCRS): Conduct IOT&E and publish IER.
  - (U) (\$988) Advanced Field Artillery Tactical Data System (AFATDS): Conduct IOT&E and publish IER.
  - (U) (\$100) Short Range Anti-Tank Weapon (SRAW): Conduct IOT&E and publish IER.
  - (U) (\$55) Tactical Electronic Reconnaissance Processing and Simulation System (TERPES) Version IV: Conduct IOT&E and publish IER.
  - (U) (\$10) Tactical Communications Center (TCC) Product Improvement Program (PIP): Conduct IOT&E and publish IER.

# UNCLASSIFIED

205

# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6 PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support Analysis

PROJECT NUMBER: C0033

PROJECT TITLE: Marine Corps Test and Evaluation Activity (MCOTEA)

### B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1995 President's Budget:	2,074	1,916	N/A	N/A
(U) FY 1995 Appropriated:	N/A	1,916	N/A	N/A
(U) Adjustments from Appropriated/ FY 1995 PRESBDG:	-333	-77	N/A	N/A
(U) FY 1996/97 PRESBDG Submit:	1,741	1,839	1,909	2,344

### (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: FY 1994 funding was reduced due to year end execution. FY 1995 was decreased by a total of \$77 for the following undistributed Congressional reductions: Consulting Services, Small Business Innovative Research, University Research, and Travel.

(U) Schedule: FY 1995 MCS, TWIS and 81mm are new requirements. FY 1996 the M-29 Arresting Gear test and the AN/TPS-59 are new requirements. The level of effort in the MCOTEA support area, necessary to accomplish these new objectives, has increased. During FY 1997, we have added the IOT&E of the AFATDS, which will take place jointly with the Army, and the OT&Es of the ADCP, and PCE to our level of effort.

(U) Technical: Not applicable.

C. (U) OTHER PROGRAM FUNDING SUMMARY: Not applicable.

(U) RELATED RDT&E: Not applicable.

D. (U) SCHEDULE PROFILE: Not applicable.

# UNCLASSIFIED

# UNCLASSIFIED

FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

(U) COST (Dollars in thousands)

PROJECT NUMBER & TITLE	FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
C0073 Human Resources Management and Forecasting	2,078	1,576	1,717	1,692	1,740	1,787	1,691	1,691	CONT.	CONT.

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: This program funds the advanced development of systems and equipment to improve the manpower readiness of the Fleet Marine Force and develops techniques and methods that advance enlisted and officer occupational assignment, promotions, and career track planning in the Marine Corps while end strength is reduced and force structure is changed.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. (U) FY 1994 ACCOMPLISHMENTS:
  - (U) (\$243) Completed the Enlisted Planning System.
  - (U) (\$1,043) Continued development of the first increment of Total Force Decision Support System (TFDSS) that will allow action officers direct access to historical and current manpower data. Completed Life Cycle Management documentation, enhancements and analysis of the TFDSS. Developed Monitor Assignment Support System prototype.
  - (U) (\$207) Completed conversion of the Recruit Distribution Model (RDM) and the Enlisted Staffing Goal Model (ESGM). Continued research into the use of commercial off-the-shelf (COTS) software to solve the linear optimization problems associated with the models. Started conversion of the Enlisted Assignment Model (EAM).
  - (U) (\$585) Began initial design development of the Optical Digital Imaging (ODI) records management system.

# UNCLASSIFIED

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## FY 1996 RDT&E, N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT NUMBER: C0073

PROJECT TITLE: Human Resources Management and Forecasting

### 2. (U) FY 1995 PLAN:

- (U) (\$684) Continue TFDSS development by incorporating Reserve, Separated and Retired data. Design applications for Reserve Affairs Division and Separations and Retirement Branch.
- (U) (\$492) Complete conversion of EAM. Continue development effort to integrate existing models to incorporate a common data dictionary and finalize research in using commercial software. Research the application that the models have to the Marine Corps Reserve. Begin conversion of the Enlisted Planning Model (EPM) and Training Management System (TMS) models.
- (U) (\$400) Complete the design of the ODI records management system.

### 3. (U) FY 1996 PLAN:

- (U) (\$824) Design applications for the Manpower Management Division; e.g., the Monitor Assignment Support System, management of training quotas, and management of lateral moves.
- (U) (\$893) Complete conversion of EPM and TMS models. Begin conversion of Long Range Enlisted Staffing Goal (LRESG) model and Officer Staffing Goal (OSG) model.

### 4. (U) FY 1997 PLAN:

- (U) (\$802) Design applications for Manpower and Reserve Affairs Divisions; e.g., tracking of deserters information, and analysis of equal opportunity data and personal military awards.
- (U) (\$890) Complete conversion of LRESG and OSG models. Begin and complete conversion of the Promotion Planning Process model. Begin conversion of Tour Optimization for Uniform Readiness (TOUR) Concept Evaluation Process model.

Page 142-11 of 142-13 Pages

Exhibit R-2

# UNCLASSIFIED

203

# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide

Support

PROJECT NUMBER: C0073

PROJECT TITLE: Human Resources Management and Forecasting

### B. (U) PROGRAM CHANGE SUMMARY:

	<u>FY 1994</u>	<u>FY 1995</u>	<u>FY 1996</u>	<u>FY 1997</u>
(U) FY 1995 President's Budget:	2,535	2,112	N/A	N/A
(U) FY 1995 Appropriated:	N/A	2,112	N/A	N/A
(U) Adjustments from Appropriated/ FY 1995 PRESBUDG:	-457	-536	N/A	N/A
(U) FY 1996/97 PRESBUDG Submit:	2,078	1,576	1,717	1,692

### (U) CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 1994 decrease of \$457 was due to end-of-year execution adjustments. FY 1995 funding was decreased by a total of \$536 for the following undistributed Congressional reductions: Consulting Services, Small Business Innovative Research, University Research, and Travel.

(U) Schedule: Program schedules have been adjusted to meet with new funding profiles.

(U) Technical: Not applicable.

# UNCLASSIFIED

203



# UNCLASSIFIED

## FY 1996 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET

DATE: February 1995

BUDGET ACTIVITY: 6

PROGRAM ELEMENT: 0605873M

PROGRAM ELEMENT TITLE: Marine Corps Program Wide Support

PROJECT NUMBER: C0073

PROJECT TITLE: Human Resources Management and Forecasting

### C. (U) OTHER PROGRAM FUNDING SUMMARY: (Dollars in thousands)

FY 1994 ACTUAL	FY 1995 ESTIMATE	FY 1996 ESTIMATE	FY 1997 ESTIMATE	FY 1998 ESTIMATE	FY 1999 ESTIMATE	FY 2000 ESTIMATE	FY 2001 ESTIMATE	TO COMPLETE	TOTAL PROGRAM
(U) O&MM,C Line 90A0 0	0	22	27	37	42	47	52	CONT.	CONT.
(U) PMC Line 61 (BLI# 494200) ADP Equipment (ODI only) 248	200	3,436	902	496	0	0	0	0	5,282

### (U) RELATED RDT&E:

- (U) PE 0603007A (Human Factors, Personnel and Training Advanced Technology Development)
- (U) PE 0603227F (Personnel, Training, and Simulation Technology)
- (U) PE 0603707N (Manpower, Personnel and Training Advanced Technology Development)
- (U) This program adheres to Tri-Service Reliance Agreements on Manpower and Personnel, with oversight and coordination provided by the Joint Directors of Laboratories.

### D. (U) SCHEDULE PROFILE: Not applicable.

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